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THE

WESTERN LANCET;

A Monthly Journal of

PRACTICAL MEDICINE AND SURGERY.

L. M. LAWSON, M. D.,
T. WOOD, M. D., } Editors and Proprietors.

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WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL AND PRACTICAL ANATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY RESIDENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

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Original Lectures, Essays and Communications.

Therapeutics—New Uses of Old Agents—Value of Experience. By L. M. LAWSON, M. D.

It is a singular fact, that the accredited value of medicinal agents, is liable to very great fluctuations. Like the commercial value of the products of agriculture or manufacture, the reputation of an agent, supposed to be capable of curing certain forms of disease, occupies at one time the highest, and at another the lowest position in the scale, and that too in the estimation of the same persons. Such facts teach us that *experience* is too often fallacious, and that it requires the utmost precaution to arrive at correct conclusions. We have no doubt that many articles belonging to the materia medica occupy false positions; some evidently possess far less value than is usually attached to them, while others are more efficient than general experience would indicate.

We propose to comment, in a few brief articles, on some agents, to which the above remarks may properly be applied, and to indicate, as nearly as possible, some of the results of experience.

VERATRUM VIRIDE.

Within a few years past, much has been written in relation to the therapeutical properties of the *veratrum viride*, or American Helebore; and, as the result of these investigations, many distinguished members of the profession regard it as an agent possessing important therapeutic properties, and different, in some important particulars, from the *veratrum album*.

The *veratrum viride* is known by the common names of *American Helebore, Swamp Helebore, Indian Poke, Itch Weed*, etc. It is an indigenous plant, found in many portions of the United States, but is especially abundant in the state of New York. It grows in wet or marshy situations; the stem is annual, with thick, fleshy, perennial root, the upper portion being tunicated like an onion, In its botanical characters, veratrum viride resembles the European *V. album*, and it was this circumstance which seems to have attracted attention to it; but subsequent experiments have demonstrated that there is not that similarity in the medicinal effects of the two agents, which their external characteristics would indicate, and which was originally supposed to exist.

The earliest and best account we have of the medicinal properties of the V. viride, is contained in a paper published in the *Am. Jour. Med. Sciences*, for August, 1835, written by Charles Osgood, M. D, of Providence, Rhode Island. Dr. Osgood regarded this agent as differing materially in its effects from the European plant, and especially that, unlike its European congener, it does not induce purging. He states, also, that Professor Tully, of Yale College, who had made extensive use of the article, was of opinion that it should supersede the other species of the genus, and also the colchicum autumnale; and he gives the following as its properties: 1. Deobstruent and alterative; 2. Acrid narcotic; 3. Emetic; 4 Epispastic; 5. Errhine. Dr. Osgood remarks, also, that its secondary deobstruent effects are manifested as a *resolvent, antipsoraic, sialagogue*, and, probably *emmenagogue*.

Its narcotic effects are prominent, and are manifested by faintness, somnolency, dimness of vision, dilatation of the pupils, virtigo, etc. But one of its most important effects was observed to be exerted on the *heart*, frequently reducing the pulse from 75 or 80 in the minute, to 35 or 40, in the course of a few hours; and the *strength* of the pulse was reduced as much as its frequency. It was found to be emetic in doses of from four to six grains of the substance, one or two fluid

drachms of the tincture, and from one to two grains of the extract.

Dr. Osgood employed the tincture, wine, extract, ointment, infusion, decoction, and powder of the root. The tincture was prepared by adding ʒvj of the recent bruised root to Oj of diluted alcohol. The wine and the tincture appeared to possess about equal medicinal value.

The principal diseases in which Dr. Osgood employed this agent were the *arthritic inflammations.* In these affections he gave ʒss of the tincture, or one-third of a grain of the extract, repeated every three or four hours, until narcosis and vomiting were produced, or the disease yielded. He thought the combination of *opium* with the helebore, was a more efficient medicine than the latter alone. In *acute* rheumatism, especially, it should be combined with the tincture of opium. He thought it less successful in the *chronic* forms of rheumatism. Dr. Tully recommended it in asthma, and dysentery; and it was used in dyspepsia, and externally as a discutient and antipsoraic.

But notwithstanding the favorable opinions expressed by Dr. Osgood, Professor Tully, and other members of the profession, the article failed to attract the attention of the profession generally, and it therefore remained comparatively unknown. Within the last few years, however, Dr. Wesley C. Norwood, of Cokesbury, South Carolina, has again called attention to the article, and, by extended observations, has still further developed the therapeutic action of the remedy. Dr. Norwood remarks, (*Southern Med. and Surg. Jour., June* 1850) that he first employed it in 1844, and that he found its remedial properties to be acrid narcotic, expectorant, diaphoretic, and sedative, "*eminently reducing the frequency of the pulse, and rendering it slow, full and distinct.*" When administered in a single full dose, he found it "*drastically emetic;*" But in *small* doses perfectly mild, and could be given with safety to the young, delicate or feeble.

In regard to the action of the V. virade on the bowels, Dr. Norwood's testimony is similar to that of Dr. Osgood; that is, that it *does not operate as a cathartic.* This property draws a very obvious and strongly marked distinction between this agent and the V. album, as well as the colchicum. Dr. Norwood remarks, also, that the V. album does not materially lessen the action of the heart, while this is one of the most prominent effects of the viride.

The affections in which Dr. Norwood employed the agent are, pneumonitis, rheumatism, typhoid fever, chorea—and the inflammatory affections generally. He regards it as a valuable expectorant, in small doses.

The preparation employed by Dr. Norwood is the *tincture*, which is prepared by digesting ʒviij of the root in Oj of diluted alcohol. The dose according to his experience, is from eight to fifteen drops for adult males, and from six to twelve for females.

It will be remarked, that a material discrepancy occurs between the statements of Drs. Osgood and Norwood, in reference to the *dose* of the article—the former giving from f. ʒss to ivj, while the latter advises only from eight to fifteen drops, as the ordinary range. It seems, also, that they both employed the *saturated* tincture—Dr. Osgood's made with ℥vj. of the root to the pint of alcohol, while Dr. Norwood adds ʒviij of the root. We cannot presume, however, that the difference in dose depends on the variation in strength, for we are informed by Dr. Osgood, that he at first used ʒviij, but found that quantity more than sufficient to saturate a pint of the menstruum.

In view of the fact, that Dr. Norwood (and others following his example) obtained the most important results from the very small doses administered, we are forced to the conclusion, that the quantity given by Dr. Osgood, was altogether too large, and therefore the article failed to accomplish all the good that might have been derived from its more judicious employment. It is probable, also, that the violent effects which often followed the administration of full doses, deterred physicians from using the article, and thus it did not attain any considerable degree of popularity.

It seems quite evident, that Dr. Norwood has greatly extended our knowledge of the virtues of this article, but it is very doubtful whether it can be beneficially applied to all the diseases which he mentions. Thus, it is recommended as an efficient agent in acute pneumonitis, and also in *typhoid fever*, and *typhoid* pneumonia. It is difficult to conceive, however, that an agent which is capable of controlling the most active form of pneumonitis, is equally efficacious in typhoid fever and typhoid pneumonia—the one a disease of a high grade of action, the other tending to prostration.

It is a point of some importance to ascertain the character of the active constituents of the veratrum viride, and that question early engaged the att ention of Dr. Osgood. His ex-

periments do not appear, however, to have been very complete, but he reaches the conclusion (analogically rather than demonstratively), that it does not contain *veratria.* It has been established, however, by the analysis of Mr. Worthington, (*Am. Jour. Pharmacy*) that it contains an alkaloid substance, apparently identical with veratria; and it seems extremely probable that its activity depends mainly, if not exclusively, on the presence of that alkaloid. The V. album, likewise contains the same alkaloid, but their properties cannot be said to be the same, for the album purges, while the viride does not affect the bowels, even in large doses. It is not a little surprising that Dr. Carson, in the late edition of Pereira's Materia Medica, should declare that the uses and mode of administration of the viride are similar to those of the white helebore, for the fact, that one purges while the other does not, must necessarily establish a very broad distinction between the two agents. Thus, Professor Tully employed the viride in dysentery; but it would require a very strong faith to prompt the administration of the album in that disease. It is probable that Dr. Carson was misled by the fact that both varieties contain veratria.

There seems good reason to believe that the active properties of the veratrum viride depend on the presence of *verartia;* and if so, it becomes at once a question, whether that alkaloid cannot be made a safe and efficient substitute for the more ordinary preparations of the plant. The following are the effects of *veratria* as enumerated by Pereira: Feeling of warmth in the stomach and bowels; tingling sensations in various parts of the body; nausea and vomiting; frequently produces perspiration and diuresis; *and the bowels are for the most part confined, so that purgatives are not unfrequently required during its use.* But in some cases it has caused copious bilious stools. (This, however, seems to be an exception to the rule). *Dr. Bardsley generally found the pulse become slower and depressed after the use of veratria.*

We cannot fail to perceive the striking resemblance which the effects of veratria bear to those of the tincture of veratrum viride, and there is strong ground to believe that they are identical. The fact that the V. album induces active purgation, does not militate against this view, for it appears quite evident that the cathartic properties of that agent depend on something more than the presence of *veratria,* for the separate employment of the alkaloid is rarely followed by such a result, and probably the exceptional cases are too few to be of

any moment. The question, therefore, is, whether the properties of the veratrum viride do not depend on the presence of the alkaloid; while the cathartic properties of the veratrum album arise from something superadded to the veratria.

But in whatever way this question may be decided, there seems to be no reasonable doubt that the properties of the veratrum viride have not been fully understood hitherto, and that the investigations of Dr. Norwood, (to be corrected by future observations) have opened up new views in regard to this agent, and that it will ultimately become one of the most valuable articles of the materia medica. The diseases in which it appears, thus far, to be most useful, are, cases of *over-action* (pneumonia, bronchitis, rheumatism) and inordinate action of the heart generally. Probably in various nervous affections, such as chorea and neuralgia, it may also be highly useful. But it is evident that many observations are yet required to ascertain the true effects of the agent.

Fracture of the Bones of the Head. BY H. K. PUSEY, M. D., of Garnetsville, Ky.

The following case which came under my observation on the 23d of Oct. 1849, struck me as one of interest, and on perusing my notes of the case, I concluded to furnish you with a brief account of it for publication, provided, you deem it worthy a place in your excellent Journal. In detailing this case, I have not in view to add any thing new or interesting to the profession, in reference to the treatment of similar cases, nor to show any particular triumph of the surgical art; but I regard his recovery as something extraordinary, and as demonstrating in a wonderful manner the reparative powers of nature.

Master B. G. aged six years, of robust, healthy constitution, was running before an ox-cart, heavily loaded with sand; he fell and before he could recover, was caught by the cart wheel, which passed over his head, striking it between the mastoid process of the right temporal bone and the occipital protuberance, producing comminuted fracture of the occipital bone, extending upward from the superior transverse line on that bone, to its attachment with the parietal. The wheel in passing across the head, broke the attachment be-

tween the parietal bones, by means of their suture, their entire length; the fissure extending down through the frontal bone to the root of the nose, obviously separating the lateral halves of that bone. Below this, the width of the wheel tyre, was another fissure extending from the first named point across the squamous portion of the temporal bone, to the fronto-parietal suture, which was separated, leaving an opening between the parietal and frontal bones, three fourths of an inch in width, and about two inches, or the width of the anterior border of the parietal bone, in length.

I saw him one and a half hours after the reception of the injury, before much tumifaction had taken place, and could distinctly trace the fissures and satisfy myself in reference to its true nature and extent. The fracture of the of the os occipitis was comminuted and the fragments depressed, though being movable. I succeeded in partially restoring them to their place; but in consequence of the displacement of the brain or opening of the cranium anteriorly, there was not sufficient resistance by the contained organ to keep the fragments in their proper position. The soft parts were unbroken.

I found him in a state of deep coma respirations, exceedingly slow, and stertorous—pulse, imperceptible at the wrist, and every breath would apparently be his last. I regarded his case as entirely hopeless, for I believed his head was literally crushed, and probably should have attempted to do nothing for him, but for the importunities of his mother.

Stimulating injections were administered, and sinipisms applied to the spine and extremities. In the course of one hour, the symptoms of concussion, which were combined with those of compression, began to give way, and the pulse increased to a considerable degree of fullness. When I bled him from a large orifice to 12 ounces, and adjusted the displaced bone as nearly as possible, without making incisions, shaved his head and made cold applications.

On the 24th, in the morning, eighteen hours after the injury, I found him breathing easily—had called for food and drink through the night—had rested tolerably well, and seemed rational when aroused up; but when left alone, talked incoherently, and complained of pain in the head; pulse 120 per minute, and respiration accelerated; scalp and face enormously swollen, so much as to almost entirely obliterate the features. The bowels are unmoved, and has not urinated. Applied twelve leeches, which were repeated every eight hours, with the effect of relieving the tumifac-

tion in the course of twenty-four hours. Relieved the bladder, and gave cal. jalap and scammony, 5 grains aa. every three hours to three portions, then followed by injections until the bowels were freely moved.

At 9 o'clock, P. M., visited him again—bowels have been purged off freely—pulse 100 and somewhat corded. He is entirely rational—skin rather hot and dry—gave one-eighth grain tart. emet. 2 grains ipecac every two hours. It did not produce nausea, though relaxed the skin, and diminished the pulse in force and frequency.

25th. Has had a good night's rest, and seems to be doing well. The swelling of the face and scalp, relieved in a great measure. The parietal commissure extending through the frontal bone remains open, but was easily closed, and maintained in position, by means of a roller bandage; over which was applied an iced cap. The edges of the parietal and frontal bones could not be made to approximate each other, without an unwarrantable degree of force, and as there was some danger of producing fatal compression of the brain, it was thought advisable to make no attempt at closing this opening, especially as I believed the bones, in their young and growing condition, would ultimately approximate each other, so as to afford the brain a sufficient protection at that point. In this conclusion, however, it seems, I was destined to disappointment; for now, upwards of four years since, the aperture is as large as at first, and when left unprotected by a properly adjusted compress, which was applied from the date of the fracture; the brain, on the slightest excitement, protrudes in form of a cylindrical tumor as large as a man's thumb.

It is unnecessary to follow the case further, suffice it to say, that under general treatment, without any untoward symptom, he went on to recover in the course of four weeks, and has enjoyed uninterrupted health since, except on some three or four occasions, at night and when asleep, after a hearty supper, he has been attacked with convulsions; though, from the fact, he had had similar attacks before, they could not be attributed entirely to the previous injury. And even under the influence of vascular excitement, when the brain protrudes at this opening, he does not suffer any inconvenience. The pulsation of the anterior cerebral arteries can be seen very distinctly as well as a vibratory or undulating motion of the brain, corresponding with respiration.

Three Cases of Lithotomy in Infants. By T. Wood, M. D.

On examining the records of operations for the removal of calculi from the bladder, we find cases have been rare in infants at an earlier age than three or four years. This may be the result of two causes: First, infants during the first months of extra-uterine life, may not be so liable to these concretions. Second, surgeons may have been more reluctant to operate on the very young child; and hence cases may have been compelled to wait and bear their sufferings after the stone had been detected, until they have arrived at an age at which they might be supposed to bear the operation better. But it is my opinion, based upon two of the cases which I am about to report, that calculus formations are not unusual in very young children, and in some instances may exist, even before birth; and that the cutting for their removal may be performed with safety and success, at any age at which the stone may be detected.

Case 1st. A child of Mr. S., (a respectable German baker of this city,) only fifteen months old, had been troubled from the time of his birth with pain and difficulty in passing his urine. There was a constant, involuntary dribbling from the urethra, which kept his diaper saturated with urine. Blood was often discharged, together with pus, in the urine. He had been subject to frequent attacks of diarrhœa, accompanied with a distressing prolapsus of the rectum, and from the continued irritation from these painful causes, he had, during the latter months, suffered from convulsions, similar to those that result from dentition. The developement of the inferior extremities seemed to have been arrested, while the size of his body and head was as large as usual in children of his age. He would make no attempt to walk or crawl, but would sit most of his time while awake, and not suffering with a paroxysm of pain, with his penis grasped firmly in his hand.

He was sounded on the second of August, and a stone was readily detected. The next day, while he was under the influence of chloroform, I performed the lateral operation, and removed without difficulty a stone with a very rough surface, weighing one hundred and thirty-five grains, and measuring one inch and an eighth in its longest, and three-fourths of an inch in its shortest, diameter.

By the fifth day after the operation, the urine began to pass through the urethra, and at the end of two weeks none made its escape through the perineal wound.

The operation did not differ from the usual lateral method,

except the gum tube that was placed in the bladder to facilitate the escape of urine and prevent infiltration, was drawn out by our little patient before he left the operating table, and as it could not be kept in without confining his hands, it was left out. As our patient recovered without any injurious infiltration, and as the wound closed rapidly, I have since omitted the tube in all my operations, and without any untoward symptoms arising from that cause, and I think with a more rapid union of the incised prostate and other divided parts.

Case 2d. W. S., seven years of age, had suffered with pain after and at the time of urinating, for about four years, but in the intervals he was tolerably comfortable, with the exception of excoriations of his scrotum, caused by the dribbling away of urine, by which his clothes in the day, and his bed at night, were coutinually dampened. Blood and pus were frequently discharged with his urine, and the rectum had at times suffered considerably, through irritation extended to it from the bladder.

The sound revealed the presence of a stone, and I operated on the twelfth of August, by the lateral method, extracting it without difficulty. It weighed ninety seven grains, and was about three-fourths of an inch in diameter.

In two weeks the perineal wound was closed, and the entire current of urine flowed freely through the urethra. It was from this time voided voluntarily and without pain, and the operation was entirely successful.

Case 3d. A son of Mr. B., aged twenty-three months, had the ordinary symptoms of stone in the bladder, and the sound at once revealed its presence. The first time I saw the child was on the 13th of August, when I learned his history and introduced the sound. At this time the calculus was readily detected, and as the general health was good, his mother was advised to have the operation performed without delay, but from some cause it was postponed, and I did not see the child again until the 1st of November. At this time his constitution was very much impaired, from the continued irritation from the stone, and the painful micturition. From a plump, ruddy looking child, he had become pale, emaciated and feeble, with œdematous swellings of the hands and feet. He had also had several convulsions brought on by the painful efforts to pass his urine. The stone was now detected with much difficulty, and the evidence of its presence obtained by the sound was so very slight as to give much embarrassment in forming a correct diagnosis. No clear, dis-

tinct ringing sound could be heard at this time, as at the first sounding, three months previous; but a dull, indistinct sense of the touch of a hard cartilaginous body was imparted to the hand through the sound. By passing the finger into the rectum and pressing the *bas fond* of the bladder against the pubes, the stone could be felt, and its size, which was about equal to a pigeon's egg, could be pretty accurately ascertained. It was chiefly from the evidence of the first sounding, and the present examination through the rectum, that the patient, on the 5th of November was placed on the operating table. The lateral operation was adopted, and the stone was removed without difficulty. When the stone was examined, it was found to be coated entirely over its surface with a membranous pellicle that was, perhaps, the condensed fibrine of the blood that had, from time to time, escaped into the bladder. The presence of this coat upon the stone sufficiently explained the cause of the obscurity in the last examinations by the sound. After the operation, the wound healed up kindly, the œdema soon disappeared, and there was no more return of the convulsions. The patient's general health was rapidly restored, and the difficult micturition entirely disappeared.

Astley Cooper, in speaking of the success of Lithotomy performed on patients of various ages, says that "under the age of two years, children often become convulsed, and die from the operation, on account of their excessive irritability;" and J. F. South, in his notes on Chelius, says "I have recently cut a child of twenty months old, but he died on the fourteenth day, of peritoneal inflammation, accompanied with small abcesses in the immediate neighborhood of the wound." So we are discouraged by the highest authority, from operating on very young infants, and doubtless properly, as at that time it should be remembered, chloroform was not in use, and the shock from so severe an operation, without anasthesia would be highly dangerous to the tender and irritable organization of an infant. But in this age it is different. Chloroform is used and the shock is obviated, and it only remains for the constitution to repair the injury done by a simple incised wound. Such, at least, seemed to be the fact in the cases here reported, for in neither of them did any symptoms arise after the operation, either of an inflammatory or convulsive nature, and the restoration to health was unnsually prompt. The convulsions that had been frequent in two of the cases up to the time of the operation, did not ap-

pear afterwards, showing that each paroxysm of pain caused by the presence of stone in the bladder, had done more injury to the delicate infantile brain, than the operation when the constitution was protected from the shock by the chloroform.

A case of Empyema with pneumothorax from punctured wound. By L. D. WATERMAN, M. D., Cincinnati.

The rarity of cases of empyema, and the consequently small number likely to fall under the notice of any one practitioner, renders it the more necessary that each one should add the results of his observation to the fund of information upon this subject. I therefore present the following case, which occurred to me duriug the past year.

Jerry Taylor, a porter, aged 30 years, a very hearty strong man, was stabbed in the breast with a dirk, on the night of April 20th. He was standing with his left arm raised to ward off a blow, when he received a wound in the left side of the thorax, between the second and third ribs, about three inches from the sternum. The weapon penetrated the thoracic cavity in a downward and backward direction, probably severing the intercostal artery, and wounding the lung, as the bleeding was profuse and the dagger entered deeply.

Medical aid was sent for, and the wound closed, and the patient left to the efforts of nature.

Nearly a month after the injury, I was first called to see the patient, who was abandoned by his physician. His condition grew worse until June 1st, when auscultatory examination revealed, on the wounded side, an absence of respiratory murmur; a well marked *tintement*, synchronous with inspiration, and an occasional gurgling sound, on coughing or change of position. On the sound side, puerile respiration, and a greatly augmented impulse of the heart. There was also an unnatural resonance, on percussion of the upper part of the injured side, and dullness of the lower, in whatever position the patient was placed. Upon measurement the left side was found to be enlarged two inchcs, tense and unmoving. His pulse was frequent; his breathing so rapid and urgent that he was unable to utter more than a syllable at a breath; his coughing constant and painful, and he expectorated nearly a quart of transparent mucus daily. He was very weak, and laid upon his injured side, with the wound, which had then healed externally, immediately under him.

I proposed to perform the operation of paracentesis thoracis, but upon careful examination the next morning, I detected an elevation, which yielded a distinct fluctuation, near the seat of the original wound. I therefore substituted the *operation of necessity*, and laying the patient on his back opened this tumor, and was immediately greeted by a rush of air, which relieved the breathing instantly. Upon changing the position of the patient, a pint of true pus escaped. From the raised position of the arm at the time of the injury, and the relations of the pectoralis major and minor muscles, the course of the wound was tortuous in the ordinary posture of the arm; and the pus following the course of the wound, I was unable to introduce a tube.

June 4th. The pulse had become more natural, and the respiration less frequent; the appetite keen, and the sleep refreshing.

The pus that escaped was fœtid, owing to the hotness of the weather. The patient was ordered a more nourishing diet, a tonic, an aperient and an alterative, his condition requiring them.

June 15th. The pus ceased to flow, upwards of a half-gallon having escaped altogether, and the incision healed.

December 1st. The patient has regained his flesh and strength, and is acting as porter on a steamboat. He "feels weak in his left side after hard work." His left lung is regaining its position and office.

Thus it will be observed that the fistulous discharge of pus from the thorax continued 14 days, during the hottest part of the year, and at one time became quite fœted; that the wound closed before the thorax was free from pus, which was, therefore, absorbed; that air had free entry into the cavity of the pleura, and that nature had yet sufficient power to effect a restoration.

Quinine in Cholera Infantum. By J. U. HECKERMAN, M. D., Tiffin City, Ohio.

In the May number of the Western Journal of Medicine and Surgery, I have noticed an article by G. W. Booth, on the use of Quinine in Cholera Infantum, in which the writer states that, in many instances, the article named, has, in his hands, proven superior to every other therapeutic agent.

To this statement of Dr. Booth's I wish, through the pages of the Lancet, to add my testimony in regard to the utility of the mentioned drug, in Cholera Infantum and kin-

dred diseases. I first commenced the use of quinine in hyperamiac affections of the ailiamentary canal in children, simply as a tonic, after well marked symptoms of debility had appeared, and found it not only to answer the immediate end for which it was prescribed, but in most instances (when given in any thing like a decided dose,) to act like a charm, in permanently arresting the morbid discharges, which hitherto had either resisted the control of the more ordinary remedies, or returned after having been thereby checked. I am now in the habit of prescribing quinine, in connexion with other remedies, in almost every case of cholera infantum to which I am called; and so far from having occasion to change my course, I can say that since its adoption, (1851,) I have not only not lost a single patient, but have stripped the disease of its terrors, and cut off, what is often, under the usual plan of treatment, a protracted and serious disorder.

Indeed, if, in the treatment of these diseases, I were to be robbed of every therapeutic agent, and then permitted to select a single one, I should, without hesitation, choose the article that forms the subject of this paper.

The preparation of quinine which I prefer, is the sulphate given in solution with Acid. Sulph. dilut, to which I may or may not, add small portions of ää Tinct. Opii and Ipecac, directing therewith Calomel, in from ss. gr. to gr. ii doses, tris per diem. Under the above plan of treatment, the average duration of the disease, in my hands, is from two to four days. It may be suggested that the main agent in the cures occurring in my practice, are to be found in the Opii, Calomel, Ipecac, &c., but I feel satisfied that my success is unequivocally greater since I began, in connexion with these, the use of quinine, not as a tonic merely, but as the remedy with which I aim at immediately crushing the within-lurking cause of the malady, and would invite any who may be disposed to doubt the correctness of these observations, to give the article an impartial trial before passing conclusive judgment in the case.

Not only in such cases as are self-evidently cholera infantum, but in all cases of infantile diarrhœa, in which I have reason to suspect a slightly inflamed, or congested condition of the mucous coat of the prima via, do I, with slight variations, follow the above prescriptions. I would not be understood, by the Profession, as advancing the idea of a specific, but merely as calling attention to the fact, that the foregoing sulphate acts upon the diseased mucous membrane of the stomach and bowels, in a manner similar to the action of other sul-

phates upon different portions of mucous tissue when in a like condition; and as expressing my conviction, that in the treatment of the above diseases, the course in connexion therewith is incomparably superior to the ordinary one detailed in most published treatises upon the subject.

Correspondence.

To the Editors of the Western Lancet:

PARIS, September 15th, 1853.

(Concluded.)

M. Collineau has seen some cases of salivation produced by the use of bichlorid. hydg. As to the question of syphilis larvee, the reality does not seem to him contestable. He does not doubt that constitutional syphilis may remain for twenty and thirty years concealed, without manifesting exteriorly in any way, and may make, in consequence, a sudden explosion in a given moment. The honorable academicien has seen a woman a prostitute in her youth, who, after being exposed to the venereal infection, remained during twenty years without any syphilitic symptoms, avoiding strongly on all occasions the contraction of the pox, and with whom, at the end of these twenty years, appeared cutaneous syphilides. M. Collineau has observed something analogous, although much less characterized, with another woman.

M. Lagneau: I have seen cases in which syphilis, latent during thirty and forty years, came to make an explosion all at once, and unroll before my eyes all the series of manifestations the most characteristic of the venereal disease, manifestations which the treatment by the ordinary anti-syphilistics has ended by triumphing in a complete manner.

As to the influence of bichlorid. hydg. in the fact of salivation, I admit that there are cases of extraordinary idiosyncracy, when this accident may be the result of the use of this remedy. Since fifty years, that I have occupied myself with the treatment of venereal diseases—I have administered mercury in all its forms—I have been a witness but a single time, and then the case was doubtful, of salivation, which could be connected with the employment of bichlorid. hydg. I have also a habit, when I see to supervene a salivation with some pa-

tients, submitetd to th› use of a mercurial preparation other than the bichlorid. hydg., to substitute this last for the preceding form employed.

This substitution suffices to arrest the commencing salivation. This is, then, if I am not deceived, a consideration of high importance in the debate which is agitated before the academy.

M. Requin: If I ask the floor in this question of salivations under the influence of bichlorid. hydg., placed in doubt, and by two eminent specialists, of whom I consider one my master in syphilography, it is not that I have the pretention to oppose to their vast experience my little personal experience, but I believe to fill my duty as a humble and modest practitioner, in exposing the results of my observations on this point; observations which lead me to range myself by the side of M. Velpeau. For many years in the restrained circle of my practice, I made experiments upon the mercurial preparations, as do all those who wish to know in what differs in efficacy, the one or the other remedy of which they have made use. Now, experience confirms the precepts which I had drawn from the work of M. Lagneau, and from the instruction of Dupuytren, my master, that the bichlorid. hydg. is the best form for administering the anti-syphilitic remedy. All my cases of pox, whether in the hospital or in the city, I have treated by the pills of Dupuytren, of which I have given in my work a new formula, appropriate in a metrical system. I do not come, then, to speak against the bichlorid. hydg., but I cannot conceal it, that sometimes I have observed some cases of salivation produced by this agent; cases in which other mercurial preparations had in no way been employed, neither anteriorly nor concurrently, with the bichlorid. hydg. Should I conclude, from this, that it is necessary to suppress the bichlorid. hydg.? No, but I will say with the illustrious Boerhaave, that this medicine ought to be used *prudenter a prudente-medico*. Without doubt, salivation is rare, but it exists sometimes. If it exists, as it is certain, I am astonished that a practitioner so distinguished as M. Lagneau, should never have met with it. It may be possible that from this results the great reputation which M. Lagneau has acquired in that speciality. In truth, the persons who consult him, and with whom salivation declares itself, do not believe it their duty to address themselves anew to him for their salivation, but go to knock at the door of another physician less renowned. It is in this way that I can explain the contradiction between

the observation of M. Lagneau, a practitioner very distinguished, and my personal observations, more restrained.

Whatever it may be, the facts are the facts, and the testimony of Velpeau, Coulleneau, and Requin, who all affirm that they have observed cases of salivation produced by the bichlorid. hydg., cannot be called in doubt. In fine, of all the mercurial preparations, it is the bichlorid. hydg. which I prefer, but I employ it with prudence, because it can have inconveniences and produce mercurial intoxication.

M. Ferrus affirmed that in the course of his military campaigns, where he had treated a great number of syphilitic soldiers, he had never seen the bichlorid. hydg. produce salivation.

M. Gibert: I do not pretend to enter into a discussion worn out by preceding speakers. I will say only that, in declaring I had never observed a salivation as the result of bichlorid. hydg., I did not wish to deny the facts observed by others. I have exposed simply the results of my personal observation, and that is all. I will point only to that which I believe to be a vice in the argument of M. Velpeau. Our honorable colleague seems willing to judge of the action of bichlorid. hydg. by that of the other mercurial preparations, such as the nitrate acid, &c. Such an analogy cannot be supported. The mercurial preparations vary singularly in their effects. Thus, the nitrate acid of mercury is, of all the mercurial preparations, the one which produces salivation the most rapidly and the most energetically. Then, from the fact that a drop of this caustic can produce that accident, it does not follow that the bichlorid. hydg. can produce it. In fine, it results from this debate, that the bichlorid. hydg. is, of all the mercurial preparations, the most innocent, and the least susceptible of determining intoxication. I will not insist more upon this point, for I wish to answer the observation of M. Moreau. M. Moreau, who has had the kindness to applaud my ideas and to compliment me on my report, for which I thank him, has said: I regret that M. Ricord could not be here—he who has protested formerly against the ideas emitted in the actual report. I find it truly extraordinary that he has given so great an importance to the words of M. Ricord. More than any one, I respect and honor the eminent talent of our colleague, but I cannot prevent myself from finding all this great noise, which has been made about his words, as very extraordinary. I do not know, in truth, against what M. Ricord has protested. I do not believe our colleague de-

nies latent syphilis, for the patients treated at Paris by M. Ricord have been sent by him to Dr. Pegot, with the simple purpose of assuring himself if those persons who had no more, at that time, a single symptom of the venereal disease, were really cured. How advise this step with the idea of the non-existence of syphilis larvee?

M. Moreau: That is precisely the fact which makes me regret the absence of M. Ricord. M. Ricord has maintained before me that syphilis could not exist without symptomatic manifestation. Now, for my own account, I believe I have observed the contrary. I have some examples of women, with whom there did not exist, for a long time, any syphilistic manifestation, and who are delivered of dead syphilistic children in the maternal breast.

The conclusions of the report of M. Gibert were adopted. It will be seen by the reader that M. Ricord was not present at this discussion.

At the meeting, however, of the Academy, of Oct. 11th, and after the reading of the minutes, M. Ricord demanded the floor for the defense of his doctrines.

M. Ricord: Gentlemen, I do not wish that the Academy should think that I wish to take occasion, at each report of M. Gibert, to make some demands. This is the second time that I am called to the tribune in such circumstances. The first time, after a report very well made by the annual secretary, I had believed it my duty to make some reserves apropos to this work. I will not enter into any explanation, for I would not reopen a discussion quite exhausted, only, as there was in the memoir which was the subject of the report, and in the report itself, some points of doctrine judged in a different manner from mine, I believed it right to make some reserves, in order to develope later the reasons, if the occasion presented itself. As to the last and excellent report read to the academy by M. Gibert, upon a memoir of M. Dr. Pageot, relative to the treatment of syphilis by mineral waters containing sulphur, I would not demand the floor on this occasion if my name and opinions had not been brought into the discussion, and if, especially, contrary opinions to those I profess had not been uttered. I cannot then keep silent, for it would be to accept this false interpretation of my doctrines. It was a question of syphilis larvee (concealed) in connection with which my much honored master, M. Moreau, uttered for me an opinion which is not, and never has been, mine. That results from the fact that I have badly expressed myself and

have made myself badly understood. I have been made to say, if, at least, I have caught the sense of the minutes of the last meeting, that I deny the existence of syphilis larvee, (concealed) that I did not believe that a syphilitic individual could remain a longer or a shorter time, with the appearance of health, without a manifestation of any symptom of the disease. To that I must reply, no, a thousand times, no. I have never said it, professed or printed anything of the kind It would be necessary that I should not have visited only during a month a venereal hospital, in order that such an idea, if it had ever entered my brain, should be immediately effaced. It is there one of the most ordinary facts, known by every one. If I sustained an opinion such as that which has been imputed to me, I should excite, justly, against me all the syphilographs, as well as all physicians, for to-day no one is ignorant that syphilis may remain for a longer or shorter time without manifesting itself internally by its characteristic phenomena. I admit syphilis larvee, the syphilitic diathesis, for these words are synonymous, I admit the disposition, the syphilitic *temperament*, a bad impression, let me say it in passing, and I regret that it has been used. Not only do I admit syphilis larvee, but I am going yet farther. I sustain the assertion which has been used more than once against me, with what intentions I will not seek to explain; I have affirmed, and I expect not only that syphilis can persist in certain subjects, with the appearance of the most perfect health, but yet I do not know to what point, whatever they may do, in spite of the most rational and best followed treatment, one is never freed from the syphilitic influence. There are some who believe in the radical cure of the venereal disease, who have faith in the complete extinction of the violent influence. For me, my opinion is that, when once the diathesis is acquired, produced, it remains always, whatever one may do, something, some susceptible leaven, in certain patients, to ferment and to develope itself after a longer or shorter time. It is this which has made me lay down this general rule, (I will say this law, if the word does not appear too affected to certain minds,) that one cannot cure pox but once. So long as the influence of the diathesis persists, one cannot go through a new series of syphilitic accidents. Now, this impossibility does not seem to cease; I have not yet the facts which prove it. One can, at the end of a certain time, inoculate a man already vaccinated, the virus of the vaccination and the success of the inoculation prove that the preservative influence has ceased. It is no

the same with syphilitic virus. Its influence seems more persistant; but in the cures which one may regard as radical, this inference must then be something analogous to that of small pox, to that of vaccination, and compatible with health. One cannot, on the same person, reproduce the indurated chancre, the initial and necessary phenomena of venereal infection. Twenty years experience at hospital Midi, (a l'hospital Midi) have rendered me immovable in this opinion—partaken equally by M. Puche, who, during a long time, has sought with the greatest zeal, but uselessly, to produce the phenomenon. One of the general laws inscribed in the code of syphilis is, then, that one cannot go through the field of pox twice. Now, it is upon the prolonged persistance of the diathesis that *this* law is based. The diathesis can then persist, whatever one may do; that which has been taken often for a consequence of new contagion, of new infection, was but the continuation of the first. But for the persons who pretend that with 110 pills of Dupuytren, neither more nor less, one cures the pox, a new accident, a new manifestation, cannot proceed but from a new contagion, whether it be from a primitive accident, whether it be *d'emblee* from the secondary or tertiary accidents. When one has studied, when one knows the laws of the evolution of syphilis, one may recognise, from the nature of the phenomena one has under his eyes, if it is a second or third link of the chain of the disease in question. For those who know that an exostosis is not the first manifestation of the syphilitic diathesis, a phenomenon of this kind supervening after the eighth, the tenth, or the fifteenth day of a gonorrhœa, (blennorhagie,) will not be connected with the last as the origin and point of departure.

In following, step by step, the evolution of syphilitic accidents from their character, their aspects, from the tissues which they affect, we may ascend to their source. The diathesis can persist a long time, but with intervals more or less considerable, where it does not manifest its presence, it advances by bounds or jumps, if I may so speak. It stops, then goes on again; it stops anew, and again goes on. I admit that when once the infection is produced, the diathesis can persist in the individual, with all the appearances of health, after manifestations more or less frequent, more or less numerous. I remember an individual upon whom surgeons wished to extirpate a pretended cancerous tumor of the cheek. It was a gummons, which disappeared by an anti-syphilitic treatment. This patient was in my service in 1848 or 1849, and

he had not had any other venereal antecedent but a chancre, dating back to the year 1804. It was then forty years after the primitive accident, that new manifestations were produced. It results then, that one can, twenty, thirty and forty years after an apparent cure of syphilis, see new accidents appear. An individual, dead twenty years, I suppose, after the manifestations of primitive accidents, will you say that he died cured of syphilis? No, for if he had succumbed, ten, twenty or thirty years later, the diathesis would have been sufficient to make an explosion.

You see, gentlemen, I do not deny syphilis *larvee*. And that which may have lead M. Moreau into error, is a point of doctrine which I have expressed often, and for which the energy of my convictions only increased with time. I will now state it. A primitive infecting accident being given, if nothing intervenes to arrest its march, if it remains free from all treatment, I maintain that in Paris, under the climatic conditions in which I have studied the evolution of syphilis, we will not pass six months before we will see the appearance of secondary accidents. I say at Paris, with intention, for when it is a question to state precisely the phenomena of syphilis, it is necessary not only to take into account the infection, the poisoning, but still more, the adjuvant causes which can modify its actions. Thus, in the climate of Paris, there is not an infecting accident which passes the period of six months, without constitutional manifestations. It is a fact without exception, the truth of which, I am fully convinced of in my mind and conscience, towards and against all. When I have established this general rule, in an access of generosity, I have enlarged this kind of circle of syphilis in which I had enclosed the primitive infecting accident, and I have extended to one year this point of six months. I have incurred, by that, the blame of my learned confrere and friend, M. Pouche, who considers this generosity badly founded. So whoever would wish to take the trouble to follow the evolution of syphilis, so as to make observations by himself, it is easy to acquire in a very short time, a thorough conviction. I invite the incredulous, and call them to the field of battle, to the clinique of Hospital Midi. Let them come, and they will see that for every primitive accident well determined, well diagnosed, and more, free from all treatment, six months will not pass without constitutional manifestations. Take the infecting chancre, without fail in ninety cases in a hundred, we can determine in a precise manner the epoque of

the appearance of secondary symptoms. On this proposition I will assume all the responsibility. It is necessary for that, that no treatment should have intervened. In the opposite case, the explosion of secondary accidents may be retarded for a longer or shorter period. Treatment can break a link in the chain, and suppress them. Thus, an indurated chancre treated by appropriate means, we will see sometimes that no secondary accident appears, but at the end of eight, ten, or fifteen years, or indeed a tertiary accident, an exostosis for example, manifests itself.

M. Roux: But that is then a discouraging and despairing doctrine.

M. Ricord continues: Again a moment, very dear and honored master, and I will restore to you both courage and hope. I said that an intervening treatment could retard for a longer or shorter length of time, an accident, break the chain of syphilis and suppress, for example, the secondary phenomena. We meet every day individuals attacked by syphilis, who have followed but an incomplete treatment with carelessness, and who, after ten, fifteen, twenty or forty years, will present secondary manifestions: as for example, the man with the *gommeuse* tumor of the chest. Thus we can, by a treatment more or less well conducted, more or less appropriate to the patient, (for different patients require different therapeutical remedies,) we can, I say, retard in certain individuals, the explosion of syphilis for ten, twenty, thirty and forty years. Behold what observation demonstrates and teaches; primitive accidents not treated, are followed by fixed constitutional manifestations; primitive accidents treated are not followed by any possible determination, by any certainty, there are disorders in the constitutional manifestations, or possible cure. If it is despairing, discouraging to think that one is never certain of being cured of a syphilis once declared, here is, what is on the contrary, full of security and hope. When a space of six months has passed with a primitive accident, and without manifesting any secondary accident, one may be certain that one will not have syphilis. Here is, certainly, a doctrine which must inspire security and assurance, much more than that which my adversaries constitute themselves the defenders. For with that other manner of seeing, with that surprising facility of contagion admitted by them, what person in the world can believe himself under shelter or cover from the pox. You who caress with so much love that unhappy condition of

pox, d'emblee, that is to say, of the pox breaking out without primitive accident, how can you not tremble every instant to carry in you this violent poison, to rewarm in your bosom this dangerous enemy. You have under your eyes an accident of an infecting nature. One gives you the certainty that you can observe in a given time, the danger or harmlessness, and you do not wish to see it! The study of all the poisons conducts you to facts of the same nature—you accept them without trouble; now it is only those who expose the syphilitic virus who find you incredulous. Every syphilis has its time of incubation and its regular periods of successive manifestation, an evolution which unfolds itself once, in diverse epoques, never to be re-produced. Without doubt, there are numerous examples of slow syphilis, in some individuals who complain to you of a blennorhogia which they had twenty years before. But is it that one can conclude from the accounts of all the patients, of whom the greatest number never make any observations, of whom several are interested to conceal from you the existence of a primitive, infecting accident. What exactness of observation? what? because an individual will tell you that he has had, at a certain time, a blennorhagia, you will connect with this blennorhagia the syphilitic accidents which you have before you? Do you accept these observations made by the patients as definite facts, incontestable? Ah! if these facts were multiplied often—if they equalled in number those which we do not cease to present to your observation, which one can follow step by step, which one can study from day to day, the successive evolution, like to that rose tree spoken of by Jean Jacques, that one plants, which is seen to grow, and which the eye can follow each day, the divers phases of its brilliant flowering season; if the facts I say, had the character of frequency and vigor, in place of being as they are, rare, vague and exceptional, I could understand that a great case could be made and that much importance could be attached to it. Apropos of these facts of slow syphilis (tardire) that you believe able to connect with accidents such as the blennorhagia, or the phenomena of new contagion, I am going to show you that one can go much further in seeking the true source, and find it. I wish to speak of hereditary syphilis. Well! syphilis larvee can be as well imposed by hereditary transmission, as by individual poisoning, as by the contagion acquired by the individual. I have, at this moment, at my hospital, an individnal who had, seventeen years after his

visit, hatched upon him a syphilis which his parents had gratified him with on his coming into the world. We have seen hereditary pox appear only after forty years. If these persons had had, in the interval, a blennorhagia or a primitive accident, no one would have failed to attribute to these accidents the secondary manifestations so slow in appearing. Some would say that a blonnorhagia can produce, after seventeen, twenty or forty years, a *gommeuse* tumor of the chest, a caries of the palatine arch.

If one wishes to have an exact idea of the evolution of syphilis, it is necessary to take individuals having primitive accident well marked, well diagnosed, upon whose value and nature every body agrees, and then to follow them step by step in their march, progress and termination. Then to resume, I admit syphilis larvee. The syphilitic diathesis can, in my opinion, lie dormant during many years, without manifesting any exterior symptom; but I do not admit that an individual having primitive infecting accidents not treated, can remain ten, fifteen or twenty years without any symptoms of the disease. Six months to a year is the length of time in these conditions, which I accord to the primitive accident to pronounce itself.

I pass to another point, to the question of sulphurous waters. Our learned annual secretary makes me say in that connection, that which I have neither said nor wrote—that I sent patients to the sulphurous waters to know if they are or are not cured of syphilis. I protest against such an assertion. I do not doubt that sulphurous waters may re-kindle an extinguished disposition, and cause an old leaven of pox to ferment, as do a great many other stimulants, but it is not for such an object that I send my patients to the waters. It is to satisfy certain conditions of treatment, sometimes to rid the patient of certain influences of the anti-syphilitic treatment; in fine, for divers reasons which would requsre too much time to develope here. I employ sulphurous waters as every one does, but never with the intention which has been attributed to me.

And now, a last word, if the Academy will be kind enough to allow me, upon a point of practice and experience. Apropos of the action of bichlorid. hydg., I have seen with astonishment, M. Lagneau state the opinion that this remedy never produces salivation. That assertion is so contrary to that which I have observed in my practice, that I ought to meditate an instant before such an affirmation, emanating

from a man as distinguished as M. Lagneau. I range myself here in opinion with MM. Velpeau and Requin. A very singular thing! The two finest cases, or to speak better, the two most frightful cases of salivation that I have seen in my life, were the result of bichlorid. hydg., whose action on the salivary glands is here denied. In one case, the patient lost the half of his tongue, in the other necrosis of the inferior maxillary was the result of the mercurial stomatitis. Bichlorid. hydg. does then salivate. Without doubt, if very small quantities of this remedy are given, salivation will not be produced. This condition is common to all mercurial preparations. With one centigramme daily, it would be necessary for the patient to try with good will if he would salivate himself. Without doubt, if, as has been said by our learned colleague M. Gibert, a mercurial scale is established one will see that certain mercurial preparations have an action quicker and more rapid than others. The frictions with blue ointment and the nitrate acid of mercury, bring about salivation very quick. The protiodid hydg. is also very active, but one cannot have more salivation with one than the other of these agents. It is a question of quantity, but it would be extraordinary that the agent which manifests the most powerfully its influence upon the syphilitic accident, should be that one which has the least action upon the economy.

M. Gibert: I demand the floor for a personal explanation. At the last sitting, I said, in reply to an observation of M. Moreau, that I was astonished at the loud reports that some had given, out side of this meeting, to the protestations of M. Ricord against my first report, and I am astonished yet. I repeat it, I do not know against what M. Ricord has protested. There was no question in the first work, either against his person or his opinions; he was not named no more than in the last report which I read to the Academy. I only mentioned some observations which I found in the memoir of M. Pegot, of patients sent to the mineral sulphurous waters by M. Ricord, with the object, it is said, to prove their definite cure. For my own part, I had not in any way, neither in one nor the other of my two reports, the person and the opinions of our colleague. This is all I have to say in personal explanation. I will add only, in terminating, that I engage M. Ricord to inspect and temper the zeal of certain journals, the eulogists and official defenders or officious of his doctrines, always being ready to decorate with epithets of

ignorance and "old fogyism," the men who dare to think or speak in a different manner. I have finished.

M. Ricord: I should not wish our honorable colleague, M. Gibert, should remain with the apprehension of a bad interpretation of my words. I withdraw from my protest all that which did not treat of some things which I have believed right to make, already in favor of opinions which I profess. As to the last work of M. Gibert, in connection with the memoir of M. Pegot, I have no objections to make to it. I find it excellent in all points. I have wished only to protest against an assertion put forth in the memoir of M. Pegot, and say that I have never had occasion to send patients treated by myself, to the waters with the object of assuring myself of their cure. I have desired equally to correct an opinion which has been attributed to me on latent syphilis, in the discussion which followed the reading of the report of M. Gibert; it is for this reason I have taken the floor, and in no way for the purpose of attacking the excellent report of our learned annual secretary, M. Gibert.

M. Morreau.—I felicitate myself for having lead M. Ricord to the tribune, and having induced him to expose his opinions on syphilis larvèe. He had been led into error, in thinking that M. Ricord did not believe in that form of syphilis; now that was contrary to the facts sufficiently numerous in his practice. Morreau has been able, in submitting to a mercurial treatment, men who had, several times procreated syphilitic infants, to arrest these deplorable results, and permit them to give life to infants very healthy. I was astonished, said M. Moreau, that such an eminent siphilographist as M. Ricord, would place in doubt such facts, and I am as much more happy to have heard his profession in this regard, as I had been ridiculed by certain journals, for having submitted to a mercurial treatment, individuals exempt from all syphilitic manifestations, with the object of preventing them from begetting infected children.

M. Roux.—I desire to say something on the points debated in this meeting. In relation to the question of the effects of bichlorid. hydg. I declare with Messrs. Velpeau, Ricord, and Requin, that I have seen several cases of saturation produced by the administration of this substance. Another point on which I cannot agree with M. Ricord, is that in relation to the influence of sulphurous mineral waters on the syphilitic diathesis. Borden and Hallè, were in the habit of sending individuals treated for syphilis, to the mineral waters,

in order to assure themselves that their cure was certain and definite. For my part from the example of these two masters, I have done the same thing; and it has seemed to me, that it was an excellent touchstone for verifying the existence or absence of pox. It has prompted me to ascertain this important fact, that whilst the pox is latent, the remedies have much less power on it, than when its manifestations are apparent. I compare willingly the phenomena of syphilis larvèe, to robbers impregnable or difficult to arrest whilst they are concealed in their caves, and upon whom the hand of justice is laid more easily when they venture out of their retreats. Before finishing I think I must protest against the doctrine which M. Ricord has just developed. It is in my opinion a doctrine discouraging and disheartening, and I do not wish that it should go out of this meeting, before having been discussed, meditated upon, and passed through the crucible of a serious reflection. What then, no one is ever able to have the feeling of having been cured of pox! but, it is then I repeat it an assertion disheartening, well calculated to carry trouble and desolation into families.

What if some of us, which God forbid, may have in an error of youth, contracted this disease, he should in spite of the employment of the best treatment, notwithstanding the complete disappearance of all manifestations, still tremble after 10, 20, 30 or 40 years for himself, wife and children. Is this not a frightful situation which M. Ricord makes for us? It is said there is no prescription against the pox, it is not however, necessary to believe this according to the letter. I do not admit, for my part, this axiom in its rigorous and absolute sense.

I cannot believe that at the age of 60 years, 80 years, a man who has been exposed to the contagion in his youth, can still dread its effects, and to whom one may say, at his death, that if he has not had the pox, it is not the fault of having waited sufficiently long. I do not ask that such an assertion should go out from this meeting, before having had a serious and careful discussion.

M. Velpeau.—The claims of M. Ricord have conducted us very far, and the result which we have before us, proves the truth of that remark of M. Begin, viz., that in connection with the minutes, (proces-verbal) one may speak on any thing, even the moon. I observe, with pleasure, that I am not the only one who has observed salivation as a consequence of the employment of bichlor. hydg. Since the opinions

presented at the last sitting by M. Requin, are increased to-day by those of M. Roux and Ricord.

I will not insist then on this point, but pass immediately to a question which we have discussed largely some time ago, with M. Ricord. I do not rise to speak of syphilis larvèe; but I wish to protest against a strange assertion emitted by M. Ricord, viz. that in syphilis, the primitive infecting accident, is always followed by secondary manifestation in the space of six months. It is only from an excess of generosity that our colleague could give a year.

I protest with all my power against that proposition, which seems to me to be an error, as much more dangerous, since it includes several others. And first, an infecting chancre cannot be followed by secondary accidents, even when it is not treated. An indurated chancre free from all treatment, can very well produce no manifestation of constitutional treatment. M. Ricord defies us to prove it, but I will say to our colleague, that this manner of arguing is not less strange than his doctrines, it is not with superb defiances that one makes science.

Although I may not give to M. Ricord the material proofs of what I advance, I will give the reasons upon which I base my opinions, and which have determined in me an entire conviction. I have seen individuals having had venereal symptoms, gonnorhœa, chancres, remain without treatment, arrive at the end of ten, fifteen, twenty years with constitutional accidents; and observe that they were persons who observed a manner the most scrupulous, the most attentive, who were afraid of pox, who came to advise me, with fright of the least redness which they observed on their persons. I inquired into their antecedents, but could only find that gonnorhœa or the chancre which dated back to ten, twenty, thirty years.

M. Ricord does not accept these facts, and laughs at the manner of observing them, and does not admit the histories given by the patients; errors, interested lies, say she, and finds the argument very singular founded on such opinions, and can, a most remarkable thing! when he wishes to prove that the manifestations of hereditary syphilis can remain concealed during ten, fifteen, twenty years and more, cite us the examples of individuals presenting constitutional symptoms, without ever having had either chancre or gonnorhœa, but whose parents had formerly the pox. You believe then in the veracity of these persons, who deny ever to have had

chancre or gonnorhœa, who affirm that their parents have had the pox? Why do you go to seek in hereditary transmission the explanations of phenomena presented by them? Have these individuals never been able to contract gonnorhœa or chancre without perceiving it? But the same arguments, you reject with disdain, or admit them with complacency, when the necessities of your doctrine require it.

It is truly very necessary to proceed with great pleasure in seeking in hereditary transmission, the cause of syphilitic accidents appearing at the end of fifteen, twenty, or thirty years.

M. Ricord tells us that it is necessary to follow the patients from the beginning to the termination of the disease, if we wish to have an exact idea of its march and evolution. And in this connection he has presented us a charming allegory of the rose tree which one plants and sees to grow up, upon which one may follow the opening of the buds and flowers. We have planted, we have seen it grow, and we have followed this rose tree in the same way as you have done. With the experience which age gives, we have seen venereal accidents, gonorrhœas chancres with individuals, who have not been willing or who have not been able to treat themselves, with whom secondary accidents did not manifest themselves, but till a very long time after, not having made an explosion, but after an incubation of ten, twenty, and thirty years. These facts multiply themselves every day. One sees an infinite number of patients having secondary accidents in whom it is not possible to find the cause, but in a blennorrhagia or a chancre, dating back to a very distant period.

When you say that every individual having an infecting chancre without treatment, will present in the space of six months or more the accidents of constitutional syphilis, upon what do you base your opinion? You cannot follow indefinitely your patients. They remain a month, two months in your hospital, and then you never see them again. How then can you follow in them—the evolution of pox; for, to make a law so general, so absolute, it would be necessary to follow all the patients without exception. Such an investigation is simply impossible, and the opinion you give illusory. That which is the least illusory, is the unanimous consent of all practitioners, is the general belief in the opinion which you condemn.

There are many things which are not susceptible of demonstration, but which find their proof in the conviction, in

the general assent of men, who recognize and proclaim them as true. From whence I conclude that your proposition, relative to primitive syphilis giving rise necessarily in the space of six months, to secondary manifestations is erroneous, contrary to observation, to experience, and the general consent of practitioners.

Here the discussion was closed, to be resumed on the slightest occasion. Velpeau is very hostile to the opinions of Ricord, and lets no opportunity pass without attacking them. Gibert is exceedingly hostile to Ricord also. Your readers may know that Gibert's opinion are entitled to much weight, as he is one of the surgeons of St. Louis. His wards, however, have been occupied with cutaneous diseases.

M. Ricord, however, remains as I said in the beginning unhurt. The great mass of the students are his warm disciples, as also the younger part of the distinguished profession here.

It will be of interest for your readers to know that the injections with perchloride of iron of aneurismal sacs has failed in every case here.

I witnessed M. Velpeau inject an aneurism of the bronchial artery at the bend of the elbow three times, without success. He thought after the third injection that the aneurism would be cured, but was forced at last to ligate the artery.

The cases in which the perchlorid iron has been used, are not many, yet they have been followed by abcess in and around the aneurism. M. Lennoir, surgeon of the Hopital Necker, has lately reported a case at great length, which resulted in the death of the patient. At the next meeting of the Academy of Medicine, Malgaigne is to read a paper on the subject.

I have been much interested in observing the treatment of acute rheumatism, by sulph. quinine, at La Petiè, by M. Valleix. He gives about forty grains in the twenty-four hours, dividing it into ten parts, of which one is taken about every two and a half hours. At the end of the second or third day, I have seen patients entirely relieved, who could not before the administration of the quinine move themselves in bed. I will make some notes on several cases, and send them to you in my next

M. Piorry of La Charite, a man given to vagaries, has lately conceived the idea that cavities of the lungs can be cured by compression. With this idea, he has had M. Chariere to make compressors, whose action can be regulated by a screw and strap. There is a pad in front and one behind,

so as to force the anterior and posterior walls of the chest in closer proximity, and thus press the walls of the cavity together. At the same time he gives iod. potass internally, and the vapors of iodine. I have not heard of his having any success as yet. You know that Piorry has a great reputation for his skill in diagnosis, by means of percussion. Lately he examined a man, and pronounced after percussion that both kidneys were in a state of inflammation. The man died, and on a post mortem, it was found that he only had one kidney, and that it was situated over the spine. He pretends to tell by percussion, whether inflammation exists in cellular tissue in the muscle, or the periosteum. Very few put any confidence in his diagnosis when carried so far.

In almost all the hospitals, there are a very large number of cases of Bright's disease and diabetes. The opportunities for studying these diseases is very excellent. If this letter was not already so long, I would give you some notes of of treatment, pathology, &c. I will however defer it to another time.

M. Louis has resigned his place as one of the physicians of Hotel-Dieu. He has been forced to do so, from the precarious condition of the health of his son, which demands a residence in the south of France.

The vacation commenced on the 1st, and continues till the 1st of November. I will write you soon again; until then, I am yours. JOHN A. MURPHY, M. D.

Reviews and Notices.

Elements of Human Anatomy; General, Descriptive and Practical. By T. G. Richardson, M. D., Demonstrator of Anatomy in the Medical Department of the University at Louisville, and one of the Attending Surgeons to the Louisville Marine Hospital. "What a piece of work is a man! How noble in reason! how infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a God! the beauty of the world! the paragon of animals!" Philadelphia: Lippincott, Grambo & Co., 1854.

The apology offered for the publication of this new work on Anatomy, by the author, is the arrangement of his subjects,

which he thinks will be better adapted to the wants of the student of anatomy, than any other work on the same branch of science now before the Profession. The substitution of English for Latin terms is claimed as an improvement, and the work is designed as a substitute for those now extant on both descriptive and practical anatomy. This, as the boys say, is "killing two birds with the same stone." The style of the work is clear and accurate, and the illustrations are good, and with the exception of the arrangement of the subjects, we see nothing in it materially different from other works that have recently issued from the press. We wish for the book an extensive sale, and that the author may gain an ample remuneration for his labors.

On the Etiology, Pathology, and Treatment of Fibro-Bronchitis and Rheumatic Pneumonia. By THOMAS H. BUCKLER, M. D., formerly Physician to the Baltimore Alms House Infirmary. Philadelphia: Blanchard & Lea, 1853; pp. 150.

The author of this dissertation informs us that it was originally presented to the American Medical Association, in 1853, as a voluntary communication, but was *rejected* by the committee, and therefore was not published. It is evident that the writer feels much confidence in the truth of his opinions, otherwise they would not have been given to the Profession after having been rejected by the committee of the Association.

"Fibrous and rheumatic bronchitis and rheumatic pneumonia," are terms which will strike the Profession as being somewhat novel; and while we speak familiarly of the translation or metastasis of rheumatism to the pleura or lungs, the idea of *bronchitis* existing under the form of true rheumatism, certainly has not been generally known.

Dr. Buckler entertains the opinion that there exists a form of bronchitis which is seated in the *fibrous* structures of the tubes, instead of the mucous, and is therefore rheumatic in its character; and that such inflammation may extend to the lungs

and cause rheumatic inflammation in the pulmonary tissues. The object of the volume before us is to point the distinctive characters and differential diagnosis of these affections.

The following extract will serve to illustrate the author's classification of bronchial affections:

It is very remarkable that the differential diagnosis between mucous and fibrous inflammation of the bronchi should have remained without elucidation until this time, particularly when it is remembered that the relation which these two tissues bear to each other is so like that of the two similar tunics of the eye, the sclerotica and conjunctiva. Probably the reason of this neglect is, that fibrous bronchitis is so often complicated with mucous catarrh and pneumonia.

Now, instead of arranging the forms of bronchitis or pulmonary catarrh under the heads of "pituitous, dry suffocative, catarrhus senilis, peripneumonia notha, chronic catarrh," &c. &c., the following more simple classification is hesitatingly proposed:—

Bronchitis,	Mucous—Frequently both idiopathic and symptomatic. Fibrous or rheumatic—Generally idiopathic; often symptomatic. Fibrous or gouty—Never idiopathic; rarely symptomatic.	Acute, subacute, and chronic.

We have looked with some degree of care for the special *symptoms* indicating the presence of rheumatic bronchitis, and the following appears to be the authors conclusion:

The symptoms most strikingly characteristic of the acute variety of rheumatic bronchitis are profuse, irregular sweats, inordinate sensibility to cold, transient flushings of the face, and either a constant or a paroxysmal and unproductive cough.

In the *treatment* of the disease the author does not develop any new or special theory, but prefers calomel and opium to antimony, and uses somewhat freely alkalies. It is somewhat singular that he does not give a more decided *rheumatic* turn to the general course of medication.

In closing this very brief and imperfect notice of the work before us, we experience no small difficulty in forming an opinion as to its actual merits. The general proposition that the rheumatic bronchitis exists, is not at all beyond the limits

of possibility; indeed, the presence of a fibrous tissue, such as is known to exist in the bronchial tubes, would lead to the inference that rheumatic disease *might* exist there. But, in the face of this possibility, or even probability, we have no demonstrable evidence that such a diseased action has ever been developed. Certainly the author of the work before us has failed to show, either by characteristic symptoms or post mortem appearances, the existence of such an affection, and hence its presence is altogether inferential rather than demonstrative. We are free to say, however, that Dr. Buckler's treatise presents many interesting facts, and is altogether a very *suggestive* little work, and will fully repay a careful perusal.

Progress of Medicine.

ENGLAND.

A paper read by Dr. Druitt, on Cancer, before the London Medical Society, and a discussion of its Merits.—Dr. Druitt read a paper on the Modern Philosophy of Cancer, in which he urged the practical benefits which would result from a reform in the classification and nomenclature of that disease, and of others allied to it. He said there were three principles on which this classification might be founded—viz: firstly, naked-eye appearance or resemblances; secondly, vital qualities, or clinical history; thirdly, actual structure demonstrated by the microscope. On the second plan of classification, morbid growths are divided into benign, malignant, semi-malignant, cancroid, and the like, according to the degree of their destructiveness or incurability; and any growth, no matter what its structure, is considered as a cancer, or as cancer-like, provided that it tends to destroy life in the same manner in which cancer does. According to the third basis of classification, morbid growths are treated in the same way in which other objects of natural history are treated, and are classified according to the physical forms exhibited at various phases of development, the clinical history of each growth being treated of separately. The author then gave a brief definition and description of cancer, and of the other leading morbid

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growths, according to their microscopical characters; and further illustrated the necessity for a reformed nomenclature and classification by a reference to the term melanosis. He would defy any person reading various books and publications for the last twenty years, to form any true conception of what was meant by this term, or of the true tendencies of the disease indicated; the truth being, that on the shelves of any museum might be seen the most heterogeneous tumors, grouped together because they were each black, whereas there may be black cancers that rapidly destroy life, and other black tumors, of which the best specimens are found in aged grey horses, which are almost innocuous. Cancer, however, he stated emphatically to be, as Lebert says, one disease, with one determining sign—namely, the cancer nucleus, or cell, no matter of what color or of what texture the accompanying parts might be, and no matter whether it destroyed life rapidly, or let the patient linger on and die at last of old age. In order further to show the insufficiency of any classification founded on clinical history, he entered into a discussion of the vital characteristics of cancer, which he said were described in twelve or fourteen terms, the sum of which is equivalent to the word malignant. These characteristics are—constitutional origin, rapid progress, constant progress, pain, return after excision, diffusion over the economy, secondary deposits, cachexia, resistance to treatment, an infiltrating mode of growth, degenerative and softening ulceration, invasion of lymphatics, heterology of structure, and lastly death. Each of these qualities was commented upon, with the view of comparing them with similar qualities in other morbid growths and processes; and it appeared that whilst cancer was the only diseases which exhibited all of them, the epithelioma (a disease which used to be confounded with cancer, and which is now often called epithelial cancer, or cancer of the lip, scrotum, &c.) differs from real cancer, not only in its anatomical elements, which are not heterologous, but likewise in the fact of its never, so far as is known, becoming diffused over the economy. The Greek elephantiasis was observed to exhibit at least nine or ten of these signs of malignancy, and lupus as many. The exceptional cases, in which cartilaginous, glandular, and fibrous tumors recur after extirpation, and show malignant qualities, were quoted from various authors. The writer strongly contended that the use of the word malignant was unnecessary and mischievous; that it was an obstacle to true pathology, and rendered statistics impossible; that, if ap-

plied to cancer, it supplanted a better and definite term; that, if applied to other diseases besides cancer, it created endless confusion; and that it operated as a sort of bugbear, and deterred practitioners from doing their utmost for the relief of their patients. He also commented on the malignant cachexia, and, without denying its existence, affirmed that in the vast majority of cases it was not the cause of death, but that cancer generally kills, as other diseases do, by exhausting the nervous system, thinning the blood, and interfering with the functions of organs by its local presence. He concluded with some practical remarks on treatment, urging the necessity of alleviating all local symptoms, and retarding ulceration; he also spoke of the virtues of other diffusible stimulants, quinine and chloroform, in allaying the intermitting neuralgic pain, especially of secondary cancer.

Mr. Richardson hailed the paper as a fresh indication of the progress which is being made towards the proper study of disease as an unity. Our chief error hitherto had been to judge of disease by the symptoms which presented themselves, rather than with regard to the pathological condition which gave rise to them. He regarded some of the heads in the Registrar-General's Report as most faulty in this respect—as, for instance, "convulsions" and "atrophy," which really were only symptoms of disease. He objected to the term malignant, as this only had reference to the incurability of the complaint. With respect to the use of narcotics in cases of cancer, it must be recollected that they produced cachexia, and might thus hasten the fatal result.

Dr. Semple, after speaking of the importance of the diagnosis of cases of cancer, said that he could not agree with the author that the fatal result of cancer was to be attributed to the ulceration and the local disease acting upon the general system, and causing death from the drain upon the powers of life. If so, other local diseases would produce the same effect; as, for instance, an ulcer on the leg, which, however, we knew got well as the constitution improved. This was not the case with cancer. With respect to its diagnosis, the appearance and shape of the cells named by Dr. Druitt were no doubt characteristic of cancer, yet this aid to our diagnosis came too late; to be of service, our knowledge on this point should be earlier. We were therefore thrown back again on the diagnostic marks of our forefathers to distinguish whether a disease was or was not cancer. With respect to extirpation, if the disease were really in the blood, it would be of no use.

But what said experience on this point? Why, that in some cases in which extirpation was early resorted to, it was occasionally successful. With respect to the treatment of the disease, he could not hope for a remedy. There was no anology between cancer and tuberculosis, one being a new growth, the other a mere degeneration. We could not stop the new formation, but we might arrest the degeneration.

Mr. W. Adams agreed in many of the views of the author of the paper, but differed from him as to diagnosis. He would not place this on a single anatomical peculiarity. If this always existed in these cases, the microscope would detect it; but he had been in the habit of examining morbid growths for many years, and he had failed to recognize the "cancer cell" as a certain sign of cancer. He therefore considered that we must, in forming the diagnosis, have due regard to the vital symptoms presented to us.

Mr. Pilcher inquired why cancer was regarded as essentially a constitutional disease? It was so, no doubt, in the majority of cases; but why, if always so, did persons live so long with tumors having all the characteristics of cancer? Why did the author think cancer always returned after extirpation? Might there not be a local cancer—a disease at first confined to a part, and removed with success before the constitution generally became affected?

Mr. W. Cooke regarded the presence of nucleated and caudate cells as a certain sign of cancer. He thought cancerous diseases should be removed at a late stage; when the tumor was maturating, or nearly ulcerating, (he alluded more particularly to the breast,) we should remove as much as possible. The enlargement in the axilla need not be regarded. We thus got rid of the disease, and the consequent suffering from it, for a long period.

Mr. H. Smith remarked that the return of a tumor after operation did not necessarily prove that it was cancerous. He had seen cases in which the sero-cystic tumor had returned more than once after operation. This probably arose from a small portion having been left behind.

Dr. Snow had seen a great number of patients operated upon for cancer in private practice; they were as healthy-looking as any women at forty-five years of age. He agreed with Dr. Druitt that the disease was constitutional from the beginning, but it was not therefore necessarily a blood disease.

Dr. Druitt, in reply, urged the necessity of some sure basis of classification, and said that the only sure basis was micro-

scopical structure. If due allowances were made for imperfect development in some cases, and for degeneration in others, circumstances which at times oppose obstacles to the determination of individual specimens in all branches of natural science, he considered that the microscope afforded in most cases a sufficient physical sign of cancer. But if this character be not taken, what other can? He argued that it was wrong to assume that no other growth could exhibit the so-called malignant qualities; or that because a glandular growth did exhibit these qualities, that therefore it was to be called cancer, even though it had not the structure of cancer. Because, on these grounds, if science discovered some means of curing cancer, it would then cease to be cancer, which is absurd. He urged the absurdity of taking incurability as a definition of a disease, and referred to the fact that it was commonly said, ten years ago, that "such a man could not have had phthisis, because he recovered." He, lastly, stated the impossibility of arriving at any correct statistics on the present system, or of knowing whether what was described as cancer ten years ago was cancer or not. Cases described as cancer of the eyeball cured were now known to be scrofulous. He related the case of a lady now far advanced in years, from whom Sir A. Cooper excised an alleged cancer more than twenty-five years since, and observed how impossible it was, in any case of supposed cure, to be certain, without the microscope, that the disease was really cancer, and not a glandular or fibro-plastic growth.

Treatment of Inflamed Bursa of the Patella by Evacuation of the Fluid and Blistering. By Mr. W. Cooke, of the Royal Free Hospital.—The affection which, in familiar language, is called house maid's knee, is seen in various stages in the hospitals of this metropolis; sometimes so slight is the degree of inflammation and effusion that rest and gentle purgatives are sufficient to dispel all the symptoms, and at other times so far advanced in the process of exudation, that (as we have seen it several times) the best procedure consists in the removal of the whole thickened and distended bursa. We especially recollect two cases in which this operation was performed; one by Mr. Simon, at St. Thomas's Hospital, and the other by Mr. Fergusson, at King's College Hospital. There is, however, a stage of the affection which lies between the two above-mentioned extremes—viz: that in which the

effusion is still simply serous, when no copious exudation of liquor sanguinis has taken place, and no fibrinous deposit has as yet thickened the part. We have seen this stage treated in various ways—by leeches, blistering, pressure, friction, &c., accompanied by purgatives, diaphoretics, and diuretics; but Mr. Cooke combines with these means puncturing the cyst and favoring the escape of the fluid. The results obtained by Mr. Cooke have been so favorable that we are induced to allude to some of his cases. Before doing so, however, we should not omit to say that we saw this week at Guy's Hospital, a little girl (a patient of Mr. Cock) affected with synovial inflammation of the knee joint, with considerable effusion into the articulation, and very intense pain. Mr. Cock made a puncture into the joint, evacuated much serum, and the symptoms have since that time subsided to a surprising degree. We merely hint at this practice to show that interference of the kind alluded to is not so hazardous as is sometimes represented.

Mary S——, aged 30, a servant-of-all-work, presented herself amongst the out-patients, March 10, 1853, with effusion in the bursæ of both knees; the distension was considerable and painful, and distressed the patient very much, wholly incapacitating her for her usual avocation. She was in good general health, but rather plethoric. Mr. Cooke having introduced the grooved needle, at the same time rotating it, and pressing gently upon the swelling, an ounce and a half of unctuous, synovial-like fluid was obtained from one bursa, by which procedure it was totally emptied. A bandage was applied very lightly, and she expressed herself relieved by the tapping. A blister was ordered the same evening to the knee, and the patient desired to take a purgative.

A week afterwards, the blister being healed, there remained some thickening of the walls of the bursa, as well as some puffiness of the surrounding tissues. The next week, being the second after the tapping and blister, the knee was in quite a normal condition, with not the slightest appearance of there having been anything the matter with it. The other dropsical bursa was then subjected to the same treatment, and progressed equally well. At the end of a month the patient returned to her occupation, with a caution always to use a pad when kneeling. Mr. Cooke said, on discharging this woman, that these cases are constantly presenting themselves, and always yield to this treatment, if the patients be in tolerable health, as readily as the foregoing; if a strumous or otherwise

unhealthy tendency exist, a second tapping and blistering are occasionally required, with the addition of the application of iodine ointment to the blistered surface, and of course, if necessary, constitutional treatment.

Structure and Function of the Spleen.—There are still numerous opinions almost constantly being advanced on the structure and function of this complicated organ. Buk supposes that the colorless corpuscles of blood which are to be changed into the colored ones, are formed in it. This takes place by the passage out of the twigs of arteries ramifying on the Malpighian vesicles of an organizable lymph, which thus gets into the lymphatics. (He believes the Malpighian corpuscles to communicate with the lymphatics.) Here the first developed elements of the blood, the colorless corpuscles are formed; part being transferred to the lymphatic vessels, and part to the veins. Thus the venous blood contains an important component not found in the arterial.

Tigri, in a paper reprinted from an Italian medical journal, and written in order to vindicate his claim to priority over Assor and Kolliner, in their researches on the function of the spleen, re-asserts, as the results of his microscopic and other investigations on the spleen of men and animals, the following conclusions:

The spleen is an organ which nature has destined to preside over the material composition of the blood. It receives into its vessels blood loaded with solid matters for elimination; these are the used-up epithelial cells and red globules, which are assimilated in it, and reduced into new principles of nutriment.

1. The anatomical elements of the spleen are blood and lymphatic vessels, to which are united the Malpighian corpuscles, the fibrous structure, the microscopic web, and the splenic fluid.

2. That it is not credible that the vessels of the spleen, looking at their size, as compared with that organ, are destined only for its nutrition.

3. This is confirmed by observing that in other organs in which the blood has to undergo a modification, there exist two orders of different vessels, i. e., the pulmonary and bronchial arteries for the lung, the hepatic artery and portal vein, for the liver.

4. Similarly, these two orders of vessels must be recog-

nized in the spleen; the first comprises the nutrient vessels; the second, those which carry into the venous system the blood loaded with eliminable materials.

5. The special conformation of the splenic venous canal of ruminants, visible from the point of their entrance into the organ, has reference not only to the form of the canal but also to the structure of its walls.

6. To the form, which is cylindrical, but irregular, from hollows and projections, to which he gives the name of splenic productions.

7. To the structure, inasmuch as the parietes of the veins are formed by the red substance of the organ, together with a most subtle and transparent membrane, which divides it from immediate contact with the blood.

8. This membrane, organized like that of the capillaries, performs the office of a filter, and gives passage to the red globules of the blood, which are rendered inactive as well as the epithelial bodies.

9. This structure, so visible in the large venous trunks of the spleen of ruminants, is verified also in that of the horse, pig, and lastly, of the human spleen.

10. The communication between the arteries and veins of the second category, by the intervention of a capilary system, is effected by channels so ample, as to permit the easy passage of bodies as large as one-third of a milimeter.

11. The spleen pulp otherwise is not a dense liquid, but an assemblage of fusiform nucleated cells, involuted or folded on themselves, isolated nuclei, and red blood globules, which elements are contained in a most delicate areolar web.

12. The presence of the Malpighian bodies is undoubted.

13. The structure of the spleen presents no resemblance to the cavernous bodies.

14. The microscopic web, with its areolæ, is in direct communication with the venous cavity, by the porosities of the stratum limiting the isolated or confluent splenic productions.

15. The same web is in communication with the lymphatics.

16. The epithelial bodies, detached from the walls of the vascular system, and mixed with the circulating blood, are brought by the artery into the splenic tissue, in which there is every reason to believe that they are arrested.

17. The same happens to the worn out blood globules.—*Bri. and For. Med. Chir., Rev.*

FRANCE.

Fistula in Ano, treated by Iodine Injections. By M. Boinet.—At a meeting of the Institute, of August 1st, M. Boinet read a memoir, designed to demonstrate the efficacy of injections of iodine in the radical cure of fistula in ano, whatever their form, extent, or complications. Seven cases are detailed. which offer examples of almost every variety of fistula — complete, blind, or incomplete fistula, deep fistula, with loss of substance of the intestine, and fistula in tuberculous subjects. These observations tend to prove that iodine injections may be advantageously employed in all cases of fistula, but especially in those in which the method by incision is dangerous or ineffectual; such, for example, as extend deeply, or occur in phtisical patients, or depend upon some alteration of the ischium, the coccyx, or sacrum.

The advantages of iodine injections over the ordinary method, consist, in obtaining a cure more easily, and in a shorter time, in avoiding pain and the danger of hemorrhage, and in permitting the patients to continue at their usual avocations.

The following are the conclusions of the memoir:

1. Iodine injections, properly administered, can cure radically all cases of fistula, whether complete or incomplete, simple or complicated.
2. They cure them more promptly than the method by incision commonly employed, and with less danger.
3. They produce no pain, and are easily practiced.
4. They permit patients to follow their occupations, and relieve them from daily painful dressings.
5. They are applicable to all cases, and especially to those in which incision or excision are dangerous or impossible.
6. They do no harm, even if they are ineffectual, and do not prevent the subsequent use of the knife. It is therefore rational to employ them before having recourse to a cutting instrument.—*Gazette des Hopitaux.*

Guano in Cutaneous Diseases. By Dr. Desmartis, of Bordeaux.—Guano is very worthy of the attention of physicians as a remedy in skin diseases. I have experimented with it, and have been struck with the results which I obtained. In a case of pemphigus, the eruption was permanently cured by two or three baths containing sixteen ounces of gua-

no in solution; and I have observed several cases of tinea completely cured by lotions of this substance.

I have also seen cases of psoriasis, and of chronic eczema that had been called incurable, which yielded to a persevering employment of this remedy. By means of collyria, consisting of solutions of guano, I have succeeded in curing radically extensive opacities of the cornea. Leucomas, and even thick albugos have disappeared under this treatment, and the eye has regained its natural transparency.

I have found guano of great service in arresting the excessive suppuration and degeneration of tissue occurring in ulcerations of scrofulous subjects; in these cases, however, the lotions, injections, and baths should be very dilute, in order to avoid pain and severe irritation in the ulcerated surface.

In open cancer, guano causes great pain unless it is very much diluted; it acts as an astringent, however, in contracting these ulcers, and prevents the development of the erysipelas which is so frequently manifested in their vicinity.

Although the curative agents contained in guano enter the economy by absorption, yet it is still proper to administer internal remedies; the iodide of sulphur in the case of favus; Donovan's solution, or arsenious acid in certain grave herpatic affections; iron and iodine in scrofula; mercury and iodide of potassium in syphilis, etc., and purgative in all cases.

What is the active principle in guano? We cannot say with precision. It contains potash and lime, which may act as detergent and siccative; ammonia, which stimulates the skin; oxide of iron, an excellent tonic; a fatty substance; uric, oxalic and phosphoric acids.

When guano is prescribed in skin diseases, sixteen ounces are usually dissolved in a bath.

In lotions, we must be governed by the inflammatory condition of the diseased parts. From one to four ounces of guano to a pint of water in the proper proportion. The lotion should be boiled and filtered. It then assumes a clear golden color. An ointment may be made with a drachm of guano to an ounce of lard.

M. Recamier was the first to recommend baths of guano; that celebrated practitioner has employed them with the best results. For my own part, I am convinced that they are destined to render immense services, not in the place of sulpher baths, or as succedanea to these; we believe that both remedies have their distinct applications.—*Revue Therapeutique du Midi.*

UNITED STATES.

The Spinal System; A Demonstration and Lecture given at the Medical College, Richmond, Va. By Marshall Hall, M. D., F. R. S., etc.—In the following demonstration and lecture, I propose to pass in rapid review the experimental facts, the physiology, the pathology and the therapeutics of the *spinal system.*

I fear the multitude of topics which I have to treat may occupy your time inconveniently, I shall therefore hasten to bring them before you without further preface, and shall dismiss them in turn with but a brief commentary.

You will, I think, immediately perceive their vast importance, both in the science and practice of medicine.

1. *Experiments.*—I have in this terrapin (*Testudo græca*) divided the spinal marrow immediately below the occiput. I have, therefore, entirely separated the cerebrum, or center of the cerebral system, from the spinal marrow, or center of the spinal system.

You will soon be convinced that the term cerebro-spinal is a misnomer, combining in one, two systems, perfectly and utterly distinct.

Observe this animal; it has a painful wound in the neck, if it were susceptible of pain, and would therefore, not remain motionless, if, with sensibility, it possessed volition or the will to move. Yet it is utterly motionless, and, if untouched, would continue thus until life was extinct.

The cerebrum being removed, all spontaneous motion is annihilated. Nevertheless the power to move remains; it is volition which, with the cerebrum, has been removed. Observe the effect of the stimulus I now apply; I touch the integument near the sphincter cloacæ with the forceps; the two inferior extremities and the tail are immediately excited into energetic movement.

There is neither sensibility nor volition; consequently no voluntary, no spontaneous motion. But you observe how lively are the movements excited by external excitation. Nay, these movements are not only lively, but so similar to voluntary movements as to have beguiled physiologists into the error of supposing that sensation and volition are still present in the decapitated animal. This error was committed by Legallois, and is still maintained by Dr. Dowler, of New Orleans.

But we may place this animal in a position which would be most painful if sensibility remained; and would certainly

not be retained if volition persisted, yet it remains unmoved, and, if sketched by a pencil, the animal would be found to have preserved its form and position unmoved until life had departed.

From this second terrapin, after dividing the nervous centers exactly between the cerebrum and medulla oblongata, I have removed all the viscera. The phenomena are still the same; the same movements of the extremities are excited; the same appearance of design in their movements. The border of the glottis, that of the pharynx, that of the cloacæ, are especially very excitable. An act of respiration is excited in the head on touching the eye, or eye-lid, or the nostril; but here it may be that sensation and volition remain.

In this eviscerated animal nothing then remains but the spinal system; the cerebral, and the ganglionic systems are removed; the spinal system is isolated, the medulla oblongata being instant, and its relation to the laryngeal, sub-maxillary, and respiratory apparatus, the pharynx and the cloacæ preserved. There can be no muscular movement without a stimulus. In this and the former experiment the internal stimulus of volition is extinct. External stimuli alone are operative and efficacious. Of these the rubbing of the integuments between the thumb and finger, the pinching of the forceps, the puncture of a probe, heat and cold are the most remarkable in their effects.

I have now to show you an interesting fact or experiment; if I irritate the upper portion of the spinal marrow at its division, I immediately induce muscular movement in all the limbs. If I were to lay bare a muscular nerve and irritate it, I should induce muscular contractions in all the muscles to which that nerve supplied branches. This effect is direct; that is, from above downwards, or from within outwards; and it is alleged by Haller, Bichat, Prof. Muller, and I believe all physiologists, to be the only direction in which this nervous power acts. To my own experiments we owe the discovery of this new mode of itsaction—reflex, retrograde, from below upwards, and from within outwards. When I irritate the foot of the posterior extremity in this terrapin, you observe all the limbs are moved, just as in the experiment of irritating the upper portion of the spinal marrow. If I irritate the denuded intercostal nerve, or the lower portion of the spinal marrow, the same phenomena occurs; the conclusion is obvious.

Before I leave this topic, I must beg your attention to the

multiplicity of the actions induced: Not the limb irritated only, but all the limbs, and the tail move; in the case in which the division is carefully made precisely at the point between the cerebrum and the medulla oblongata so as not to injure the latter, an act of inspiration is frequently induced.

There is also another point to which I must draw your attention. These actions are frequently concatenated into distinct acts; in the frog prepared in the manner of this eviscerated terrapin, if we irritate the foot it frequently performs the compound act of leaping; propulsion and retraction follow each other. The same compound act is observed in sneezing and coughing, sudden inspiration being linked with forcible expiration. I believe that in ordinary respiration the two acts of inspiration and expiration are equally and essentially excited and linked together, an interesting fact which explains many physiological and pathological phenomena into which time does not permit me to enter. I must now tnrn to the second topic of this lecture.

2. *The Anatomy of the Spinal System*.—Each of the phenomena which have been described, is effected by a nervous influence, the *vis nervosa* of Haller, passing along and through a certain *nervous arc*, which, because it passes and acts through the spinal marrow, I have designated *diastaltic*. This is a fact entirely new in anatomy, and of vast importance in physiology.

The origin of this arc is in the integument, the mucous membrane, or other tissues; its course is, first along nerves *to* the spinal marrow, where it is *reflected* along other nerves *from* the spinal center, and lastly, to its destination in the muscles.

It may be destroyed in any part of this course: I have removed the integument from one foot in this terrapin; the foot is no longer excitable by the touch of the probe, as the undenuded foot has been observed to be. This fact is still more obvious in the frog. The same effect is produced by dividing either the eisodic or in-going, or exodic or out-going nerves of which I have spoken; or, lastly, by removing the annexed portion of the spinal marrow.

Thus a new kind of anatomy is demonstrated physiologically. It may be proved anatomically by laying bare the intra-spinal roots of the spinal nerves, and dividing the posterior or eisodic root, and the anterior or exodic root, in separate experiments.

There are in these experiments, as in those in reference to

sensation, some slight residuary phenomena, of which I cannot treat particularly.

3. *The Physiology of the Spinal System.*—The physiology of the spinal system embraces all the acts of ingestion, of egestion and expulsion, and of exclusion and retention in the animal economy. Deglutition, the all-important act of respiration, defecation, the acts of generation in both sexes, all, all depend upon the spinal system.

And not one of these functions were understood previous to the detection and development of this system. And not one is noticed in this relation by Redi, or Unzer, or Prochaska, or any other of the numerous authors who have been disinterred, and quoted as having anticipated me in this discovery. Certain experimental phenomena were known to them; the relation of these phenomena to the spinal marrow had been noticed by Whytt; the morbid actions of sneezing and coughing had been associated with them; but not one function, of all those which I have enumerated as specially linked with the spinal system, had been so, or at all explained. There were disputes as to whether respiration be voluntary or involuntary, and those who concluded that it is involuntary, have left no rational explanation of its nature. In a word, physiologists had not made, but *missed* the discovery of the spinal system.

There is one function of egestion or expulsion to which I must advert emphatically. It is that of the expulsion of the fœtus—parturition. This, like all other acts of expulsion, is a *spinal* act. It is modified, accelerated, or retarded by agents whose influence is exerted through the spinal system. In one word, the whole *art of obstetrics* reposes on the foundation of the spinal system as its essential basis!

I must not leave this subject without referring you to the work of Dr. Tyler Smith, written at my instigation, but hasten to other topics.

4. *The Pathology of the Spinal System.*—As in speaking of the physiology of the spinal system, I began by an expansive generalization, that it includes all the acts of ingestion and of egestion, so I must now present you with a generalization in regard to the pathology of this system; the spinal system, then, is the *seat of all convulsive diseases.*

Uneasy sensations, abnormal perceptions, delirium, coma, etc., may occur without involving the spinal system; they are morbid phenomena of the cerebral system. But the instant we observe spasm, or convulsion, or morbid contraction

of muscles of any kind, we have to do with the spinal system. In this manner an accurate knowledge of the phenomena of the spinal system becomes in the mind of the physician in regard to the diagnosis of the diseases of the nervous system, at least what the stethoscope is, in his hand and applied to the ear, to the diagnosis of diseases within the thorax. Epilepsy, tetanus, hydrophobia, are only to be investigated and understood by the physician who is adequately imbued with a knowledge of the anatomy and physiology of the spinal system. Not many years ago, Esquirol, the authority on one of these topics in France, observed:

"Les symptomes de l'epilepsie sont tellement extraordinaires, tellement au-dessus de toute explication physiologique —les causes organiques de cette maladie sont tellement inconnues, que les anciens ont cru qu'elle dependait des courroux des dieux."*

I now venture to affirm that no disease is better understood in its physiology and pathology, since the detection and application of the spinal system, than this same epilepsy; that all epilepsy consists in fact, of direct, or reflex, spinal action and its effects.

I cannot prosecute this topic at present; but I hope to do so to-morrow evening, when I am to have the honor of addressing the profession at the rooms of the Medical Society of Virginia. On that occasion I propose to enter upon it at length.

I will now only add that tetanus, which is a nerve disease, and hydrophobia, which is a blood disease, are equally intelligible and explicable on the principle of the spinal system. In both cases, as indeed in epilepsy, there is undue excitability of the spinal center; in both, or rather in all three, the phenomena consists in morbid direct and reflex actions, and their effects.

These actions and their effects are spinally seated in the organs immediately under the influence of the spinal system; in the orifices, and exists of the animal frame, and the muscles which are the agents of ingestion and egestion, of exclusion and retention; and, therefore—and most formidably—in the larynx. Hence the phenomena of laryngismus, the importance of which is becoming so well understood, and hence the importance of that simple remedy against its terrible effects produced by tracheotomy.

5. *The Therapeutics of the Spinal System.*—All those

*Maladies Mentales. T. I., p. 274,

physical agents which act by inducing sudden effects on various organs of the economy, act through the medium of the spinal system.

The effect of dashing cold water in the face of cases of asphyxia, the effect of a cold douche on the hypogastric region in that of inertia of the uterus and uterine hemorrhage are of this kind. These influences act on eisodic nerves, and disastaltically through the spinal nervous arcs, on the muscular organs excited into contraction.

The principle of these actions has not been pointed out. That principle depends on two circumstances—*difference* and *alternation*.

Cold water dashed over a cold surface would produce no effect. It is the cold water dashed over a warm surface that is so efficacious.

When the face or the hypogastrium has become cold by repeated applications of cold water, continued dashing or douches are utterly inoperative. It is the *difference* of temperature which renders the remedy efficacious. In such a case the sudden application of *warmth* is the remedy.

This fact leads to another; it is the value of the alternation of heat and cold as an external spinal excitant. My lamented friend, Mr. Henry Smith, saved a child from an apparently hopeless state of asphyxia, after the usual remedies had failed, by plunging its body into a warm and cool bath alternately. It is to be regretted that the precise temperatures of these baths have not been recorded. But the *principle* is confirmed by the fact and experiment suggested.

Certain remedial and poisonous agents exert their influence in augmenting or diminishing the excitability itself of the spinal center or of certain portions of it. Strychnia augments the spinal excitability, and especially that portion of it which acts on the larynx and pharynx, in an extreme degree. In a very minute dose it acts as a special spinal tonic. Cantharides and ergot are well known to act on the lower portion of the spinal center, that portion which I would designate as the *medulla oblongata inferior*, and through it on the cervix vesicæ and on the uterus.

But I must hasten to a close. Allow me now to ask: What do you think of the spinal system—in its utter distinction and separation from the cerebral and ganglionic systems—in its relations to experimental facts, to anatomy, physiology, pathology and therapeutics?

In speaking of experimental facts, I allude, of course, to

those that are new; as to the rest, they are, I believe entirely new. To me, I need not tell you, it is a thing of intense interest. I shall never forget the impression left on my mind by the phenomena which first suggested to me the train of investigations which has led to the discovery and establishment of this system. I had been examining the circulation in the lung of the triton; I had proceeded to separate the head and remove all sensation, and I had separated the tail. I touched this separated tail with the point of a probe, and it *moved!* I had not touched a nerve; I had not touched a muscle; I had only touched the external integument, and yet the tail moved. From that day to this I have never ceased to prosecute the inquiry suggested by this fact!—a fact which was to me as the valve in the vein to Harvey, suggesting the circulation; as the rumor of the anti-variolous efficacy of cow-pox to Jenner, suggesting vaccination; all facts which had been long known, but which had remained unsuggestive.

Such is the usual course of *discovery*. It was known to all, since the time of Davy, that the inhalation of nitrous oxide would induce insensibility. It was to Horace Wells, an American, that this fact suggested the true and real discovery of *anæsthesia*, and its recent applications to the arts of obstetrics and surgery.

I well know the opposition that this discovery excited. All discoveries *in our science* have done the same. Wells returned from Boston, after an experiment there, laughed to scorn. He was driven from his pursuit. Nevertheless he said to a gentleman of great ability and veracity, who communicated the words to me: "THERE IS A GREAT TRUTH IN THIS MATTER, AND THE WORLD WILL ACKNOWLEDGE IT ONE DAY!" His prophecy has proved true. It remains for a generous nation to reward—not the author of this discovery, for he has quitted this scene of strife—but those whom he has left behind, and who were dear to him, for this boon to suffering humanity.

On a New Method of Determining the Quantity of Urea in the Urine. By JOHN W. DRAPER, M. D., Professor of Chemistry and Physiology in the University of New York. —Much attention has of late been paid to the methods of determining the composition of the urine, it being very generally acknowledged, that if we possessed the means of a

quick and accurate analysis of it, we should be able to settle many contested questions, both in physiology and pathology.

Among the constituents of the urine, the nitrogenized bodies, urea and uric acid, are perhaps of the greatest interest, for they represent the waste which has taken place in the soft tissues generally. Accordingly from time to time new processes have been published for the estimation of these bodies, and more particularly of the first—urea. The methods recommended in the works on animal chemistry and organic analysis are, however, very far from satisfactory. Thus Simon, in his *Chemistry of Man*, effects the determination of the quantity of uera by forming the sparingly soluble nitrate, and Bowman, in his medical chemistry, resorts to the acetate, but both of these are very tedious and very disagreeable operations, and what is worse, uncertain in their results. Liebig has recently recommended the ternitrate of mercury, but the preparation of the test liquids is troublesome, and since the estimate eventually depends on the production of a particular tint or shade of a yellow color, it can not be exact.

There are, however, some simple methods which will give absolutely accurate results. These all depend on the principle, that urea and uric acid, when brought in contact with nitrous acid, undergo immediate decomposition with a brisk effervescence, owing to the escape of carbonic acid and nitrogen gas.

The quantity of these nitrogenized principles in the urine may be ascertained by determining the quantity of carbonic acid or of nitrogen thus set free, during the destructive decomposition of urea and uric acid by nitrous acid. Forty-four parts of carbonic acid, or twenty-eight of nitrogen, answer to sixty of urea.

One of these methods, which is extremely exact, I have recently described in the London and Edinburgh Philosophical Magazine. It is to conduct the disengaged carbonic acid into water of barytes, and weigh the resulting carbonate of barytes.

I have also, in examinations which I am constantly making of the urine, frequently resorted to the other plan of estimating the urea, from the quantity of nitrogen set free; and this I have done in two different ways: 1st, by determining the quantity of nitrogen by weight; or 2d, by volume. The following is a more particular description of each of these:

A liquid suitable for the decomposition of urea is easily and economically prepared by taking a single cell of Groves' voltaic battery, and placing strong nitric acid in the porous cup, and otherwise charging the cell in the usual way. After a few minutes the nitric acid turns green, becoming charged with nitrous acid. It is then to be decanted for use. If this liquid be poured into urine, filtered from its mucus, or into a solution of urea, a brisk effervescence sets in, and if a sufficient quantity of acid is used, so that red fumes are disengaged, the urea is totally decomposed, carbonic acid and nitrogen gases escaping.

In the first of the preceding methods, viz: That of determining the urea from the weight of the nitrogen, a known weight of urine (2 grammes,) filtered from mucus, is placed in a bottle containing a tube filled with the nitroso-nitric acid above described; from the bottle a bent tube conducts the escaping gases through potash water, and then through a chloride of calcium tube. The operation is conducted in the manner well known in laboratories for the analysis of a carbonate, the loss of weight of the whole apparatus gives the quantity of nitrogen which has been set free. This operation requires about half an hour, and is quite exact.

In the second method, viz: That of determining the urea from the volume of the resulting nitrogen, the operation is essentially the same, only instead of letting the nitrogen escape into the air, it is received into a gosometer, and its quantity ascertained. As conducted in my laboratory, the amount of urea in a sample of urine may thus be determined in from ten to twelve minutes, and with certainty, to one thousandth part of the weight of the urine; a degree of exactness far beyond that of the old processes, and an expedition which at once recommends this method to the physiologist and pathologist.

Editorial.

Tape-Worm.—Dr. A. Munroe reports, in Nelson's American Lancet, a case of a woman that had been troubled with *Tape-worm* for fifteen years, and was cured by administering 3ivss. of Kouso in infusion.

The worm was expelled, entire, in eleven hours after taking the medicine, and it measured eighteen feet in length, and consisted of three hundred and sixty joints.

Microscopy.—The distinguished Mr. Goadby of London, who has for many years ardently devoted himself to microscopical investigation, is now in this city. He is prepared with instruments and specimens sufficient to give full instruction in the minute anatomy of the tissues of both the vegetable and animal kingdoms. Some of his specimens are rare and beautiful. We have been much interested in his injected preparations, showing the Malpighian bodies of the kidney, and the Graafian vessicles of the female ovary.

The development of cells, and the progressive stages of perfection from the lowest to the highest orders of vegetables and animals, is beautifully illustrated, in a great number of well selected and well preserved specimens, which must have cost much time and labor, guided by a fertile genius, to prepare and arrange.

"There is Nothing New."—From recent investigations among the tombs of the ancient Egyptians, it has been discovered that they were acquainted with the use of *Nitrate of Silver* as an *indelible ink*; and also that *Nitric Acid* was employed by the "Early Egyptian Chemists," in the process of embalming dead bodies.

Quackery in England.—It is said that there is no country in the world in which Quacks and Quackery flourish to such an extent as in England.

According to the late census returns there are about thirty thousand persons practicing in the various departments of medicine and surgery, without legal qualifications.

This assertion may give surprise to those who have been accustomed to look to the Profession of England as the standard of professional purity and excellence.

Extirpation of the Uterus.—Professor Burnham of Lowell, Massachusetts, has performed this daring operation, and what is the most surprising, the patient is said to have recovered.

A lady 42 years of age had what was supposed to be diseased ovaries, and with this view of the case was brought to the operating table, but when the incision was made in the ordinary manner for ovariotomy it was discovered that not only the ovaries were diseased, but also the uterus was deeply involved in a sarcomatous growth. The structure of the uterus was so far destroyed by the malignant tumors, as to leave no hope from a removal of a part of that important organ. So the bold suggestion was made, and carried into practice, of extirpating the entire uterus and ovaries in one mass. As we might expect the patient suffered much constitutional disturbance after the operation, but by the end of the fourth week she was so far recovered as to sit up and go about the house, and further treatment discontinued. The time has been when the surgeon entered the cavity of the peritoneum with much dread for the safety of his patient, but now the surgeon removes the ovaries, with as much facility, and little anxiety, as the farmer emasculates his pigs. And if Dr. Burnham's practice is to be followed, the human females will be in a more defenseless condition than the brutes of the field, for we are certain that no good husbandman would allow one of his animals to be subjected to so barbarous an operation.

THE COLORING MATTER OF THE URINE.—Vogel a German pathologist says that the coloring principle of the urine is derived from the disintegration of the red corpuscles of the blood. If this be true, and it is premised that the blood-discs do not leave the body through any other channel than the urinary, we have in the color of the urine a ready means of ascertaining in a given time, whether a large or small quantity of blood-discs are decomposed in the animal economy

In the healthy condition from two to six parts of coloring matter are voided daily, and this expresses the normal loss and reproduction of the blood-discs.

A chlorotic patient, or convalescent, who voids but little coloring matter in the urine would have but little change or reproduction of blood-discs.

Every one whose urine is high colored would require a constan supply of red corpuscles.

The grounds upon which Vogel rests his hypothesis are the the following:

"1. In all cases of brown or brownish-black urine, when the urine is most colored, that direct sense of the coloring matter, namely, from the decomposed blood-discs, can be easily traced.

"2. In all cases where there is a constant discharge of red urine with increase of the coloring matter, as in fevers, Inflammation, etc, there we see as a common result, diminution in the quantity of the blood-corpuscles, and a corresponding condition of anæmia."

3. In cases where there is noticed diminution in the production of red blood corpuscles, with the probability of their very sparing disintegration as in many cases of anæmia and chlorosis, there do we find diminution in the excretion of the coloring matter of the urine."

Life of Sir Isaac Newton.—Sir David Brewster has in the press Memoirs of the Life, Writings, and Discourses of Sir Isaac Newton drawn up from very full materials, including manuscripts of great interest, hitherto unpublished, We will look with much interest for the forthcoming of this work, not only from our admiration of its illustrious subject, but from the high scientific position of its distinguished author. In the science of optics, Sir David is second only to Newton; and from his devotion to the study of the same natural laws that occupied the entire life of the great Philosopher, he is peculiarly fitted for the position, as his biographer.

Fistula Lacrymalis.—For the relief of this very troublesome affection, M. Desmanes of Paris uses the actual cautery—freely applying it to the interior of the sac. By this means so much nflammation arises as to result in complete obliteration of the sac.

While we acknowledge that we are indebted to the French Surgeons for many valuable discoveries in the healing art, we think this mutilation of the lacrymal apparatus is unjustifiable. First, because the difficulty can be radically removed by a much more simple and less painful method; and second, because when the sac is destroyed the tears must flow over the cheek in the absence

of their proper channel, so that only half the annoyance from lacrymal fistula is, at best, removed by it.

Prognosis and Treatment of Epilepsy.—The *Union Medicale* of May 17th and 19th, contains an article by Dr. Herpin, of Geneva, on the Prognosis and Treatment of Epilepsy, in which he speaks highly of the use of the *oxide of zinc.* From an analysis of his cases he arrives at the following results:

Of twenty-six female epileptic patients, sixteen were cured, six were improved, and four were incurable.

Of twenty-four male epileptic patients, twelve were cured, four were improved, and eight were incurable.

With regard to age he obtained the following results:

Of thirty-five patients under 20 years, eighteen were cured, nine improved, and eight were incurable.

Of nine patients aged from 20 to 50, five were cured, one was improved, and three were incurable.

Of six patients aged from 50 to 80, five were cured, one was incurable.

The period of life from 30 to 50, furnishes a third of incurable cases, while the other two do not, together, supply a fourth.

From the observations of Dr. Herpin, it appears that the treatment is best adapted to the two extremes of life. The analysis of the cases appear to afford him sufficient reason for arriving at the following conclusions:

1. Oxide of zinc seems to be indicated as an anti-epileptic in children and old persons.

2. It often fails in persons of middle age, especially in men.

3. If it be employed in females, it must be given in large doses and for a long time.

Since the observations of Marshall Hall, that in epilepsy, the muscles of the neck and larynx are usually the *first* seat of convulsive action, and that *laryngeal spasm* is an important element in the pathology of the disease, attention has been directed to topical applications of a solution of nitrate of silver to the larynx. And it has been recently suggested that there is a remarkable absence of laryngeal sensibility in epileptic cases, so much so, that in many instances, no irritation is produced by passing sponge or probing through the "rima glottidis." If this observation

proves to be true, might not the external application of small blisters over the larynx followed by application of strychnine ointment to blistered surfaces, prove a valuable auxiliary in the treatment of this malady?

Silk instead of Sponge for Laryngeal Probings.—It has been recently suggested that a ball of silk floss, or ravellings, securely attached by sewing through-and-through loosely, is much superior to the sponge for making topical applications to the vocal organs. It imbibes a sufficient quantity of the solution, and and produces less irritation in passing through the "rima glottidis," less involuntary contraction, and can, therefore, in most instances, be passed beyond the epiglottis at the first or second application.

Traumatic Tetanus successfully treated by Ice.—Dr. B. D. Carpenter, relates (in the New York *Medical Times*) an interesting case of traumatic tetanus successfully treated by the application of ice to the whole length of the spine.

Marshall Hall called the attention of the profession to this mode of treating convulsive affections, many years since, and cases of its application in the treatment of tetanus have been occasionally reported of late, and we believe with a good degree of success.

The case reported by Dr. Carpenter, was first put on purgatives, the free use of opium, and injections of tinct. assafœtida, repeated as often as the preceding one came away. This treatment was continued four days, during which time the patient rapidly grew worse.

He then determined to apply ice to the head and the whole length of the spinal column, and in ten minutes after the application, had the satisfaction of seeing the pulse come down from 110 to 75, and all the urgent symptoms relieved. The patient had but one spasm after the ice was applied.

The treatment of this disease has been attended with but little success, and we should be ready, therefore, to test any rational remedy that gives any hope of relief.

Sesquichloride of Iron in Erysipelas.—The treatment of

erysipelas by this much vaunted tincture of iron, appears to receive much favor at the hands of some of our European brethren. The reports of the London Hospital, are still confirmatory of its curative powers. The peculiarity of its administration is the large and oft repeated doses; as much is given as the stomach will tolerate.

We can readily suppose that in *one variety* of erysipelas it may prove a valuable tonic.

The disease is itself eminently depressing. In broken down constitutions, in the more advanced stages of the disease, or in aged persons, tonics and even stimulants, are, therefore, often beneficial, and the *Sesquichloride of Iron* may, in such cases, prove to be one of our most valuable remedies; but we are still slow to believe that it is adapted to the treatment of every variety of the affection. Still, however, the evidence in favor of the remedy is quite respectable, and some of the patients on whom it has been tried were young children.

Mr. Editor: Could you inform us through your valuable journal, whether we dare practice the new systems found in the journals, but not in the regular text books, without having arrayed against us all the "old fogies" in the profession, for mal-practice? For example, take Dr. Wehn's method of turning and securing the cord before delivery; if unsuccessful, would we not be liable to prosecution, or severe censure? What says medical law?

H.

We presume our correspondent has been called to account by some of the "old fogies," for trying new methods of treatment, and hence he exclaims, "what says medical law?" Unfortunately, perhaps, we have no *lex scripta* to which we can appeal, in all cases to settle disputed points; but there is a lex *non* scripta which is even more potent than the most pointed statute law. We refer to the general, broad principles of the philosophy of our science. These broad principles consist of a sound pathology, and therapeutics, and an accurate diagnosis. Those who are well grounded in these departments, and apply remedies accordingly, will *not* be guilty of mal-practice, nor justly subject to censure.

In regard to the employment of new remedies, two points are to be considered: 1st. Is the suggestion in accordance with the philosophy of our science? and, secondly, does the information

come from a respectable and reliable source? The first of these conditions would be sufficient authority for the use of an agent, although never before employed; but if we have, in addition to this, the experience of an enlightened practitioner to guide us, we are fully authorized to adopt new modes of treatment, although the *text books* may be silent on the subject. And if the modus operandi of an agent be not very clear, or not sustained by any very evident principle, we would still be justified in trying it, provided the information was derived from a reliable source; for, it must be remembered, our science is not perfect, and we may, at the moment, be wholly unable to explain the action of a valuable remedy. But if the suggestion should be entirely at variance with the well established and acknowledged philosophy of medicine, then we would not be authorized to adopt a new practice, except by long and repeated trials it had disproved the original views.

The Egyptian "Embre," a book embracing the precepts of the Thouth, or Taaut, (styled the secretary of Osiris) was considered infallible, and the heathen priests, or Pastophori, were required to adhere strictly to its injunctions, and thus they were shielded from censure, whatever might be the result. But in our own time, we have no *Embre*, or infallible guide, and we must, therefore, rely on the broad principles of the profession. It is but too apparent, however, that many practitioners adhere with the utmost pertinacity to the established modes of practice, with but little seeming disposition to enter into the *progress* of science, and the consequence is that they adhere with almost Egyptian fidelity to ancient customs or established usages. It is to such persons, we presume, that our correspondent applies the term *old fogy*. Now there are two extremes in this matter, neither of which are commendable. In one class we find the antiquated, fossil-like obstinacy or anti-progressiveness above mentioned, while in the other, there is a tendency to catch at everything *new*—simply because it *is* new. Both these classes of practitioners are bad ones. We believe strongly in the value of experience, but it must be based upon a broad knowledge of our science. Such experience is always progressive. It is what Sir Gilbert Blane calls enlightened empiricism; and that kind of experience, when sufficiently large, can be relied on with great certainty.

We would say to our correspondent, then, that a suggestion in practice, coming under the above mentioned rules, may be safely adopted, and although it might not be found in the *text books*, still the authority of *principle* would be even more valuable, and would more certainly and effectually shield the practitioner from merited censure.

Transylvania Medical School.—The spring term of this venerable institution will commence on the first Monday in March, and continue four months, under the same Faculty as heretofore. The institution is abundantly supplied with the means of illustration, and, having an able Faculty, cannot fail to prove attractive to students. Fees to the entire course, $70.

Miscellany.

Tincture of Iodine in Small-pox.—Dr. James Crawford, of Montreal, has recently published a statement of additional cases to prove the value of tincture of iodine as an ectrotic remedy in small-pox, a practice recommended by him upwards of nine years ago. He uses a saturated tincture of iodine, and has it brushed freely over the face once or twice daily, from the earliest day of the eruption that is practicable, and continuing the repetition of the application daily, or oftener, during the period of the maturation of the pustules. The earlier the application is commenced the more efficacious it proves. The inflammatory and ulcerative processes are controlled, and the tolerable itching relieved. Dr. C. has extended the application over nearly the whole body, without any evil consequence or inconvenience.

The immediate effect of the application is pain, which speedily subsides, and gradually abates in severity, after the first few applications. Dr. C. gives the testimony in behalf of this practice, of some of his colleagues in the Medical College, in which he is Professor of of Clinical Medicine, and also of others who have tried it themselves, and also of Dr. Marshall Hall, who saw some of the cases treated by him, and testifies to its value as a valuable application in these cases.—*Medical Examiner, Dec.* 1853.

A New Kind of Alcohol.—It is said that a new kind of alcohol has been discovered by M. Wurtz, a professor at the Ecole de Medicine at Paris, by repeated distillations of the oil obtained from potatoes. Its composition is represented to be C8, H10, O2. He terms it alcoöl entylique.—*Provincial Med. and Surgical Journal, Sept.* 29, 1852, *p.* 518.

Ozone.—This remarkable substance, which is sometimes, but not universally, present in the atmosphere, and which has been hitherto regarded, when observed, to be an allotropic condition of oxygen, has been discovered by a German chemist at Bonn not to be so, but a distinct substance, existing as a teroxide of hydrogen, thus continuing the series of the compounds of oxygen with hydrogen. The details of the process by means of which the discovery was effected have not yet been given.—*Med. Times Gazette, Oct.* 15, 1853.

Certain Signs Indicating the Commencement of Pulmonary Phthisis. By M. Bourdon.—Every one knows how difficult it is to determine the presence of pulmonary tubercles, in the commencement of the disease, and how uncertain are stethoscopic signs. They may not be present when the lung contains a large number of tubercles; they may exist when it does not; they may be masked by various sounds. General symptoms furnish no sure means of revealing the diagnosis; a simple catarrh may be attended by very severe symptoms, whilst a true phthisis may produce but a slight effect upon the system.

On the other hand, it is in the commencement of the malady, when the diagnosis is most difficult, that it is most important that it be understood, because at this time the opportunity exists of acting with the most success. M. Bourdon has sought to throw light on this obscure point of science. Impressed for a long time with the frequency of certain symptoms in patients affected by phthisis, he studied them with care in order to establish their true value as signs. These symptoms are arranged under several heads, according to the organs in which they are manifested. 1. Gastric symptoms. 2. Hepatic symptoms. 4. Thoracic pains.

1. Gastric symptoms must not be confounded with the morbid phenomena which are observed in nearly all diseases. Those which are coincident with the commencement of phthisis are nausea, vomitings, epigastric pains and dyspepsia. We must not expect to meet them in all patients; neverthe-

less they are extremely frequent, since M. Bourdon has found them in more than two-thirds of the subjects; some phthisical patents have experienced but one; in others, on the contrary, they are variously combined. Nausea and vomiting are the most frequent; they are generally manifested after coughing. But it must be said, however, that their frequency and intensity are by means proportionate to the severity of the cough; they occur in fasting as well as after eating. In general, the vomitings are composed of mucous secretions; they are rarely bilious. On the other hand, if they manifest themselves in a large number of tuberculous patients, they do not appear with any regularity except in a very small number of cases.

Another very common spmptom is epigastric pain. In the greatest number of cases it is accompanied by vomitings and nausea; however, it may also appear without these. With a majority of patients it is manifested only on pressure; or it is so slight that it is necessary to call their attention to it, in order to make them sensible of its presence; with a few it is developed spontaneously. Although it shows itself as well before as after eating, it is, however, after the ingestion of food that it is the most commonly observed. Dyspepsia quite persistent, without nausea or vomiting, has been observed in a certain number of cases. Frequently these gastric symptoms precede thoracic; but more frequently, perhaps, they are manifested either at the same time as the latter, or may occur afterwards. Are they due to a lesion of the stomach? This is a question whose solution has occupied the attention of the author. Frequently he has found the stomach healthy, more frequently it has presented some lesion, the most frequent being a peculiar mammillated condition of the mucous membrane. He is inclined to think that the pressure exerted by the enlarged bronchial ganglia upon the pneumo-gastric apparatus, may contribute to these affections of the stomach.

2. The liver has also presented remarkable peculiarities. In half of the cases examined by M. Bourdon, there was increase of size, accompanied often with pain. This increased volume appears above all to have manifested itself in the right lobe; the consistency of the organ does not undergo any change. Lesion of sensibility is less frequent than changes in volume. Spontaneous pains are rare; in nearly all cases they appear only on pressure or after some harsh or prolonged movements.

In a very small number of cases only, do we find this increase of sensibility without change of size.

As to the change which the liver may undergo, autopsies have shown that in more than half the cases examined, it consists in a fatty degeneration, more or less advanced; in a majority of cases the bile is more dense and more highly colored.

3. Most phthisical patients experience pain between the shoulders, and upon the sides of the chest; besides these spontaneous pains, there are others to which M. Bourdon calls the attention of physicians, and which are revealed only upon percussion. The points where this pain may be developed are quite numerous; it is generally observed, however, under the clavicle. This pain exists only on the side affected by tubercles; if both lungs are invaded, it attacks the side which is most affected. This has been observed in all periods of the disease. As to the cause of this pain, M. Bourdon is inclined to refer it, like M. Beau, to an intercostal neuritis.

The legitimate conclusions which M. Bourdon derives from his researches are the following. When a prolonged dyspepsia is observed, accompanied by nausea and vomitings, for which no cause can be assigned, or even an abnormal development of the liver without disease of the heart, or inflammation of the liver; when these phenomena are perceived to manifest themselves independently of any other affection, or in the course of chlorosis, or after measles, or typhus fever,—the physician should suspect tuberculous affection, should examine the patient with care, and even when he has doubts of its existence should act as if he was convinced of its presence, or at least use every necessary precaution.—*Archives Generales de Medecine, April*, 1853.

Death from Chloroform.—A young female, whose great toe was about to be amputated by one of the visiting surgeons of the Charity Hospital, suddenly expired while under the influence of chloroform. It was some time before she could be brought fully under the effects of the anæsthetic; she finally, however, became completely insensible, and before the operation was concluded, she sank rapidly and expired in spite of the most strenuous and judicious efforts of several medical men present. The usual precautions were used in its administration, and no censure can justly be attached to the surgeon or his assistants for the untimely result of the case.

A post mortem examination was made by the Professor of Physiology in the University of Louisiana, and all the organs were found to be perfectly healthy. A. H.

Furunculus.—M. Nelaton (Gazette des Hop.) observes, that the development of furuncles may be always arrested by keeping the part covered with linen compress, which has been dipped in concentrated alcohol. This must be accurately applied to the part, and care taken to keep it constantly moist, so that evaporation may be constantly taking place from its surface.

Balm for Chapped Nipples and Broken Chilblains.. By M. Cazenave.—Take olive oil, ten ounces, Venice turpentine, two ounces, yellow wax, one ounce, alkanet root, half an ounce, boil together, strain, and add balsam of Peru, two and a half drachms, camphor, nine and a quarter grains; stir constantly until cold.

Collodion and Castor Oil in Erysipelas.—M. Guernsant has employed with advantage, in a severe case of erysipelas, an application to the skin consisting of collodion combined with castor oil. The formula was—collodion, 30 parts, castor oil, 2 parts; mix. This varnish was applied once on each three successive days to the parts attacked, and with good effect, as it caused cessation of the burning pain, and the disappearance of the redness. The idea of mixing collodion with castor oil is due to M. Robert Latour.—*Journal de Med., in Med. Times and Gazette.*

Ferruginous Collodion.—Having observed the utility of the salts of iron in erysipelas, M. Aran, to facilitate their application, combined them with collodion, forming a preparation which united the compressive and astringent effects. It consists of equal parts of collodion and Bestuchef's tincture (etherial tincture of perchloride of iron.) Spread on the skin, it forms a somewhat thinner pellicle than ordinary collodion, but it is much more supple and resisting, so that the limb can be moved in any direction, without the cracking which takes place when collodion alone is used. Its adhesion is also more prolonged.—*Brit. and For. Med. Chir. Rev. from Bull. de Therapeutique.*

Neuralgia.—Cazenave recommends, in facial neuralgia, an ointment composed of chloroform, 20 parts, prussiate of potash, 10 parts, and lard, 60 parts; a piece the size of a walnut to be rubbed over the painful part. An oiled silk cap is then to be worn some hours.—*Brit. and For. Chir. Review.*

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

PROFESSOR OF THE PRINCIPLES AND [illegible] OF MEDICINE IN THE MEDICAL [illegible] OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE [illegible]LADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE [illegible]D COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL [illegible]NATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY AND PRACTICING [illegible]ENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

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LECTURE

On Organic Lesions of the Bronchial Tubes. By L. M. LAWSON, M. D.

The practical importance of the organic lesions of the bronchial tubes is far greater than generally supposed. Thus, dilatation, for example, is by no means an uncommon affection, and, in some of its relations, becomes peculiarly important. We find, indeed, very grave symptoms arising from such conditions, and as they closely simulate consumption itself, their study cannot fail to interest every careful and enlightened practitioner.

DILATATION OF THE BRONCHI. (*Bronchiectasis.*) *Pathological Anatomy.*—We are indebted to Laennec for the first account of dilatation of the bronchial tubes; but he appears to have overlooked a similar state of the *trachea*, as pointed out by Rokitansky. According to the observations of this author, the anatomical changes which occur in dila-

tion of the *trachea*, consist of a relaxed condition of the posterior wall, and increased capacity of the tube; at the same time the mucous membrane, glands, and transverse muscular fibers become hypertrophied, while the elastic longitudinal fibers are remarkably atrophied.* In some instances the mucous membrane passes between the hypertrophied muscular fibers, and thus forms sacculated or hernial protrusions. These protrusions may be limited to a small space, or extend throughout the whole trachea, and even invade the bronchi.

Dilatation of the *bronchial* tubes may be overlooked, as pointed out by Laennec, in consequence of being mistaken for a natural size. This error can be avoided or corrected by tracing the tube to its termination. Thus it will be found that a dilated tube springs from one of *smaller* diameter, preserving its natural shape except as to size. Laennec affirmed that these dilatations do not involve the *terminal* tubes, but occupy branches of larger dimensions. This opinion, however, is erroneous. The shape is various, being at times merely a uniform dilatation, and may terminate abruptly, or in apparently a cul-de-sac, but which will have several smaller and undilated tubes springing from it; or the enlargement may be abrupt, exhibiting the form of a cavity. These sacs or bronchial caverns vary in diameter from a few lines to an inch or more, and several may form in succession on a single tube. It is stated by Rokitansky, that when the terminal tubes become the seat of saccular dilatation, they present the appearance of membranous vesicles filled with air. The whole, therefore, may be reduced to three forms: 1. The uniform dilatation; 2. A series of small sacs, giving a head-like appearance; 3. The abrupt single sac, simulating a cavern. These latter are sometimes actually closed sacs. The condition of the walls varies in different examples; in one class they are natural in regard to thickness, in others they become attenuated, while in a third order, well marked hypertrophy of the mucous and fibrous coats exist.

As a general remark, dilatation is not common in the larger tubes, but it occurs more frequently in those of the third or fourth order.

The tubes of the middle or upper lobes, and those of the periphery or near the surface, are most liable to dilatation, and the disease may be limited to a single tube, or involve a large portion of those belonging to an entire lobe.

There are some remarkable differences in the three forms

*Rokitansky's Pathological Anatomy. p 2.

previously mentioned, which deserve to be noticed. In the sacculated varieties (whether single or numerous) the walls are attenuated, so much so, indeed, that the fibrous structure may disappear, and the mucous tissue becomes greatly thinned; but the tube does not become obliterated, however numerous the sacs. In that form where the dilatation is uniform, (or glove-like) the walls are invariably hypertrophied, and the tube often terminates in a true cul-de-sac.

The texture of the surrounding pulmonary tissue undergoes more or less change from mechanical compression or disease. Thus, the air cells may be obliterated and the structure reduced to a condition not unlike *carnification*, such as is witnessed in pulmonary compression, caused by fluid effused into the pleural sacs.

Causes and Pathology.—Several different opinions have been expressed by writers in regard to the nature of bronchial dilatation, and doubtless many different causes are capable of inducing such a condition, so that each observer may be partially correct. Laennec ascribed the disease to mere *mechanical* dilatation, being the result of distension caused by the accumulation of mucus. It is reasonable to suppose, however, that this explanation is too limited to account for all cases, notwithstanding it may be the efficient cause in some. Andral, on the contrary, looking more to the vital actions of the part, ascribed the dilatation to *altered nutrition* of the structures, but he furnishes no explanation of the nature of the process.

It should always be borne in mind that bronchial dilatation is a consectative affection, depending, in most instances, on a preceding simple bronchitis, pleurisy, or tuberculosis; and this fact itself is sufficient to justify the belief that either the morbid action extends to the tissues composing the bronchial tubes, and causes such changes in their structures as to induce expansion, or the dilatation results from partial compression.

Two classes of causes, therefore, may be mentioned: 1st, Inflammation or irritation extending to all the tissues of the tubes; and, 2d, compression and obliteration of a portion of the cells and small tubes, while others dilate to occupy the place of those compressed.

The structures of the tubes liable to become affected in the manner indicated, are especially the longitudinal elastic fibers and transverse muscular tissue. These muscular and elastic fibers are the efficient agents in maintaining the proper cali-

bre of the small tubes; and whenever they become relaxed or debilitated, proportional expansion must necessarily follow. This view was first insisted on by Dr. Stokes, and there is no small amount of testimony, direct and analogical, to sustain it. According to this view, the extension of inflammatory action, or irritation from the mucous to the fibrous and muscular structures is capable of impairing their healthy actions. The nutrition of the fibers is impaired, and their elasticity lessened or destroyed, while the action in the muscular tissues induces more or less paralysis. With the tubes thus impaired in strength, it is not surprising that the continuance of cough should cause them to yield, and thus present the phenomena of dilatation. And in addition to this, the ciliated epithelia become detached by the morbid action, so that the mucus is with increased difficulty conveyed outwards, and as this condition favors its accumulation within the tubes, both *pressure* and *obstruction* will lend their influence to produce dilatation. Nor is it singular that in one example we should meet with hypertrophy, and in another atrophy of all the tissues, for it is well known that the same general causes will, in different constitutions and under various circumstances, produce opposite results in this respect. In one instance the inflammation may be sufficiently intense to cause hypertrophy of the mucous and cellular tissues, but at the same time exhaust the vitality of the contractile fibers, while in other examples the irritative action simply impairs nutrition, and thus causes wasting or atrophy of *all* the tissues. Hence we meet with the two principal varieties, namely, with hypertrophy on the one hand, and atrophy on the other.

Dr. Corrigan has put forth another view, which assigns to the bronchial dilatation a secondary position. He assumes that an adventitious deposit takes place in the pulmonary parenchyma (whether inflammatory or otherwise) which unites more or less with the longitudinal fibrous coat, and finally obliterates a portion of the pulmonary tissue; and the result is a supplemental action on the part of healthy tubes, to supply the deficiency caused by those obliterated, and thus the increased action causes expansion. In addition to this, the diseased pulmonary tissue shrinks, and being attached to the longitudinal fibers of the bronchial tubes, the latter are forcibly dilated by dragging their walls apart. This condition he regards as analogous to cirrhosis of the liver, and, therefore, calls it *cirrhosis of the lungs.*

The explanation proposed by Dr. Corrigan is too exclu-

sive to admit of universal application, but nevertheless, there appears some reason for such theory to meet a particular class of cases. And as stated by Rokitansky, the changes which take place in the pulmonary tissue, are not satisfactorily accounted for on the supposition that *pressure* from the dilated tubes is the only cause. Thus the condensation is, in some cases, too extensive to be the result of a pressure by a thin and delicate bronchial expansion, and, moreover, it is not unfrequently less evident, immediately in contact with the dilated tube, than at more remote points. It is not improbable, therefore, that the pulmonary condensation may, at least in some instances, depend on parenchymatous disease, such as lobular pneumonia, while the pressure of the dilated tube, acting on the diseased tissue, may contribute to the result. And, as believed by Corrigan, this disease of the parenchyma may be primary, and the bronchial dilatation secondary, but it would be too exclusive to admit this explanation in more than a portion of the cases.

In regard to the *saccular* variety, the more probable opinion, as a rule, is, that the terminal tubes become obliterated by swelling and adhesive mucus, and the air cells beyond such a point necessarily collapse, so that the pressure of the inspired air within the tubes, readily dilates them to fill the vaccum caused by the collapsed cells. The degree of relaxation of the tubes, and the force of inspiration, will determine the degree to which the expansion will take place.

A tuberculous condition of the lungs readily leads to bronchiectasis. It is assumed by Hasse, that the shrivelling of the lung takes place, and that bronchial dilatation follows to compensate for the corrugation. It is not very clear, however, that such a condition really exists, except so far as the deposit of tubercles may cause obliteration of the tubes and collapse of the cells; and in such a condition, the tubes would dilate under a strong internal atmospheric pressure in the manner already explained, as occurring in bronchitis. It appears quite evident, therefore, that dilatation of the tubes results from tuberculosis in the same general manner that it does from bronchitis, namely, as a consequence either of mechanical obstruction, or the extension of inflammation to the tube-tissue. It is affirmed, however, that the *cylindrical* dilatation is, to a certain degree, incompatible with the development of tubercle, at least, that form of expansion is said never to co-exist with tuberculosis.

Bronchial dilatation may arise, also, from pleuro-pneumonia. The mechanism of its production in pleurisy is, that

when effusion occurs, a portion of the smaller tubes and air cells become compressed and obliterated, and as these do not again resume their functions, other tubes *dilate* to fill the vaccuum occasioned by those which had suffered obliteration. Lobular pneumonia, giving rise to interstitial deposits (Corrigan's Cirrhosis) may, in the manner previously explained, finally induce bronchial dilatation.

A dilated state of the tubes being usually associated with pulmonary condensation and vesicular collapse the chest is usually contracted, but the opposite may happen, if the expansion is very great, for the increase in the dimensions of the tube may more than compensate for contraction caused by the vesicular collapse, and thus bulging of the thoracic parietes will take place.

Symptoms and Diagnosis.—The ordinary symptoms of dilatation of the bronchi are, dyspnœa, cough, muco-purulent sputa, which is frequently quite fœtid. The sputa are usually opaque, and so little aerated that they readily sink in water. When the disease is severe and protracted, the general health suffers, the face becomes livid, œdema of the extremities and other dropsical effusions take place, and finally the patient emaciates; but the dropsical effusions usually arise from co-existent dilatation of the heart, which is very often induced as a consequence of this state of the pulmonary organs.

Physical Signs.—The physical signs of bronchial dilatations will necessarily vary with the extent of the disease. *Inspection* will frequently reveal some degree of *retraction*, which arises from the pulmonary condensation and vesicular collapse; and the corresponding part will be decidedly dull on percussion, or yield a *tubular* resonance. The tubular or tracheal resonance, arising from the vibration of air in a dilated tube, may readily be mistaken for preternatural *clearness*, such as would accompany emphysema, but it is a very different sound, and sustains a very different pathological relation. It is important to remember, however, that when the expansion is limited in degree and extent, the percussion-sound may not give any notable degree of dullness.

Auscultation will reveal a modification of respiration in accordance with the degree and character of the dilatation; in some examples, where the tubes are largely developed and saccular, there may be a very perfect cavernous rhonchus, provided sufficient mucus is present; while in other cases, less marked, the sound will be those of harsh, diffuse blowing, or even bronchial respiration. The mucous and sibilant rhonchi, as heard in bronchitis, may likewise be present.

The vocal *fremitus* is usually increased. Vocal resonance varies with the degree and character of the dilatation. At times there is bronchophony and even distinct pectoriloquy —the vocal vibration being very loud, and seeming to issue directly from the chest. The veiled puff of Laennec is sometimes heard; and Skoda declares that when several sacs occur in succession, a blowing, ringing, interrupted sound is developed, and that when the sac is large and the opening small, a hissing sound *precedes* the other signs.

It will be observed from the preceding statement, that the physical signs of dilated bronchi present a remarkable combination of those belonging to *phthisis*, on the one hand, and *bronchitis* on the other; but they bear an especial resemblance to those which announce the presence of tubercles. Indeed, so close is the resemblance between the signs of dilated bronchi and phthisis, that it often becomes extremely difficult to make a satisfactory diagnosis; and the very best observers, such as Laennec, Andral and Louis, have repeatedly been led into error on this subject, by mistaking dilated bronchi for tuberculous caverns and consolidation. Let us see, now, how far a *differential* diagnosis can be made reliable.

In a majority of cases, dilated bronchi may be distinguished from phthisis by attending to a few special rules bearing on the subject. Thus, in dilated bronchi, the signs elicited by percussion and auscultation are most evident about the mammary region or *middle* portions of the chest, while those indicative of phthisis are heard most commonly in the clavicular region. It is important to mention, however, that the dilatation may take place at the upper portion of the lung; and in a case which was mistaken by Louis, there was gurgling and mucous rattle *under the clavicle*. But the *rule* is that the sign occurs much *below* the clavicle. In addition to this, the signs of phthisis undergo, from the progress of the disease, considerable changes in a short time, while those appertaining to dilated tubes remain stationary for a much longer period. The percussion sound, also, will generally vary in the two affections; in phthisis it is more completely *dull*, while in dilated tubes, although dull, it is accompanied by a hollow sound, not unlike that produced by percussing the trachea, and which Dr. Williams calls tracheal or amphoric. We will be very much assisted, also, in the diagnosis by carefully analyzing the *history* of the case. Thus, phthisis is often hereditary, and the evidences of the scrofulous diathesis well marked; and the emaciation is much earlier and more considerable in tubercu-

lous disease. Indeed, the time of appearance and degree of emaciation are very important points in the differential diagnosis of these affections; for in cases of phthisis, the nutritive functions are early and extensively involved, while they are, usually, far less so in mere bronchial dilatations. It may be added, also, that while phthisis generally supervenes as an idiopathic affection, dilated tubes often succeed to pleuro-pneumonia or bronchitis.

The character of the *sputa*, not always characteristic of either affection, will often assist in the diagnosis; thus, in phthisis it is floculent, cheesy or purulent, generally without fœtor, and frequently streaked with blood; while in dilated bronchi it is apt to be extremely fœtid and sanious, and seldom bloody or exhibiting the other special signs belonging to phthisis.

Finally, if a case be presented in which a cough has lasted for a considerable time without material change, with abundant and fœtid sputa, dyspnœa and lividity, while emaciation and hectic are not proportionally aggravated, and especially if the physical signs are quite diffused, or more apparent in the middle than superior thoracic regions, we may infer with great probably that the disease depends on dilated tubes. The following summary embraces the principal elements in the differential diagnosis of these affections:

PHTHISIS.	DILATED TUBES.
1. Dullness complete, and mostly in the clavicular regions.	1. Dullness *tracheal*, and more common in the middle regions.
2. Dullness precedes the signs of caverns.	2. Dullness follows the signs of caverns.
3. Mucous and sibilant rhonchi not constant.	3. Mucous and sibilant rhonchi much more constant.
4. Bronchial respiration associated with great dullness.	4. Bronchial respiration associated with hollow (tracheal) sound.
5. Vocal resonance limited.	5. Vocal resonance very diffuse.
6. Emaciation, hectic and sweats are prominent.	6. Emaciation, hectic and sweats much less marked.
7. Respiration hurried, but evincing simple pulmonary impediment.	7. Dyspnœa more like heart disease, with lividity and frequently anasarca.
8. Sputa purulent, cheesy and often bloody, and not fœtid.	8. Sputa seldom bloody, often sanious and fœtid.
9. Symptoms rapidly increase.	9. Symptoms comparatively stationary.
10. Often traced to scrofulous diathesis.	10. More frequently arising from bronchitis or pleuro-pneumonia.
11. When caverns form flattening under the clavicle.	11. Flattening slight under the clavicle, with more general retraction.

Prognosis.—The prognosis in dilated bronchi will depend on the extent, duration and complications of the disease When very extensive and of long continuance, we can only hope

to mitigate the most severe symptoms, the lesion itself remaining unaltered; but the prognosis is still more unfavorable when the heart becomes dilated. It is true, however, that a moderate degree of bronchial dilatation may exist for an ordinary life time, and perhaps never become a fatal disease; but such patients constantly suffer, and are liable to severe exacerbations when exposed to vicissitudes of weather, or other causes calculated to increase bronchial excitement.

Treatment.—A dilated state of the bronchial tubes can be but little influenced by remedies; but the associated irritation (which is the *active* disease), may be improved by the same means that we would employ in chronic bronchitis. The stimulating expectorants, tonics and counter-irritants are the classes of remedies most appropriate in such cases. Indeed, the course of treatment detailed in the lecture on chronic bronchitis will be fully applicable to the disease now under consideration. The inhalation of iodine, chlorine, tar vapor and nitrate of silver will often prove more beneficial than most other remedies. The actea racemosa is a most valuable article, and may be given in nearly all cases with decided benefit. The fluid extract, tincture or powder may be employed, but the former is the most eligible preparation. The various narcotics become useful for the purpose of allaying irritability, and may generally be advantageously combined with the expectorants. The following formula will prove eminently servicible in many cases:

℞. Ext. Actea Racemosa f. ·
Syr. Polyg. Seneg. aa ℥ij.
Potass. Iodid. ʒj.
Tinct. Hyoscyam. ℥ij.

M. Dose ℥ij. repeated every 4 or 6 hours.

The preparations of iron, mineral acids, and vegetable tonics, usually produce beneficial effects when patients are much debilitated. Dr. Williams recommends especially the nitro-muriatic acid mixture, which at times removes the excessive fœtor. In addition to this, a pure air, nutritious but digestible aliments, and, above all, strict attention to the state of the stomach and bowels, are points of great practical importance.

The remaining organic changes of the tubes require but few remarks. The opposite condition from that just described, namely, *contraction* or *obstruction* of the tubes, is met with. This condition may arise from various causes, such as compression by enlarged glands or tumors, morbid deposits and aneurisms, thickening of the mucous and sub-mucous areolar

tissue, or excrescences springing from these parts. It is also alleged by Mr. King, that the left bronchus may be compressed by a greatly enlarged left auricle.

While narrowing of the bronchial tubes is rare in the larger branches it becomes quite common in the smaller ones, especially as the result of bronchitis. Cases are not wanting, however, in which the larger tubes become involved. Andral gives a case in which the principal bronchus of the upper lobe of the right lung became so much narrowed, in consequence of thickening of the mucous membrane, that it would scarcely admit a fine stilette. That portion of the lung had manifested weak respiratory murmur, and the patient declared he did not breathe with the right lung. In another example (*Medical Clinic*), an enormous mass of melanosis occupied the root of the right lung, apparently commencing in the bronchial ganglions, and which so compressed the right primary bronchus as to diminish its caliber one-half, and consequently produced feeble respiration in the corresponding lung. The plastic exudations which have been named in this connection, constitute *obstruction* instead of contraction, but may at times become extensive and important. The symptoms indicative of contraction or obstruction will vary with the extent of the lesion. If a large tube become compressed or obliterated, a proportional degree of dyspnœa will ensue, and if the obstruction be complete, the respiratory murmur must cease in the corresponding part, and that portion of the lung collapse. It is a fact worthy of note, that *stridulous* breathing does not occur, although a *large* tube may be compressed. The principal signs under such circumstances will be feeble respiration in the affected side, while it becomes puerile in the opposite. But if the tubes be small, the dyspnœa will be less, or entirely absent, and the collapse equally limited. When the collapse is considerable, dullness on percussion will become quite manifest. Auscultation will reveal either absence of respiration, harshness, or sibilant and sonorous rhonchi. The *practical* relations of these changes can readily be inferred from the nature of the causes which produce them.

Hypertrophy of the mucous membrane, glands, and transverse muscular fibres, are all liable to occur under protracted irritation; or the same parts may become the seat of ulceration, as was mentioned in the lecture on chronic bronchitis. These conditions have no special clinical importance beyond he diseases which produce them.

Incompatibles. By CHARLES WM. WRIGHT, M. D., of Cincinnati.

The following table contains, it is believed, all the information on the subject of incompatibles that will ever be of much value to the physician and medical student.

TABLE OF INCOMPATIBLES.

All acids,	Alkalies, Alkaline earths, All carbonates*
Alkalies and their carbonates. Alkaline earths.	Soluble metallic salts, as the sulphate of iron. Also the fixed oils.
Sulphuric acid and soluble sulphates.	Soluble salts of lead. " " mercury. " " antimony.
Hydrochloric acid, Chloride of sodium, Iodide of potassium.	Soluble salts of lead. " " silver.
Tannic and gallic acids.	Soluble salts of iron. " " silver. " " lead. " " copper. " " antimony.
Water.	Tinctures of substances which are not soluble in water to any great extent, as tincture of iodine.
Tinctures.	Solution of all substances which are insoluble in alcohol, as a solution of gum arabic, mucilages, &c.

Salts containing the same acids, or the same bases, are not, as a general thing, incompatible with each other. Thus the sulphate of potash is not incompatible with the sulphate of soda. Neither is the sulphate of potash incompatible with the nitrate of potash. Any two substances which contain the materials for forming an insoluble body, are incompatible with each other. Thus carbonate of soda and nitrate of silver, when brought together in solution, form the insoluble carbonate of silver.

*Prussic acid is not incompatible with the carbonates but all other acids are.

Ergodelateria. By. Prof. SLACK, of the Cincinnati College of Medicine and Surgery.

I send you an imperfect essay on a *vexed theme*, which has occupied the Medical Faculty since the first settlement of the Valley of the Mississippi. Much speculation and observation have been expended on it, and I believe, up to this time, without a satisfactory solution. It is vulgularly called *milk sickness*, because the disease seemed to arise from using the milk of cows somehow affected by a strange distemper, which, when exerting an influence, produced on the animals various appearances of disease, such as weakness of parts, trembling, convulsions, &c.; oftentimes death ensued. Where cattle were sensibly, though perhaps not perceptibly, affected, the calves of such dams, depending on the milk of the latter for support, almost invariably died. The butter made from infected cattle, as well as the milk, have proved a source of serious disease to many families, spread throughout the country; especially in different newly settled parts. The flesh of cattle even but slightly affected has been found unwholesome, and even poisonous. The old physicians know well, the many instances of this distressing malady, called *milk sickness*, in the neighborhood around Cincinnati. Even a number of deaths have occurred in the great Valley, traceable to no other source than the products of the milk cow, and the beef of infected cattle. Though the disease has passed from us, it still lingers on many of our borders and new settled places.

It is, therefore of the utmost importance that its cause be deciphered, in order that the deadly effects may be parried and removed.

The conjectures in regard to the cause, from time to time have been uttered or published. Respectable men have written or affirmed, that the disease arose from the cattle poisoned, by cropping the *Ranunculus*, or *vesicating crowfoot*, found frequently in meadows and pasture grounds; a course of action which cattle never pursue. They always *discriminate* their food unless *insidious*. Some have referred the cause to local *miasmatic influence*. Some to the water near which the malady prevailed, supposing a peculiar mineral or metal to have contaminated the watering place. The writer of this has been called on, more than once, to analyze waters thus situated.

Some have invoked the aid of certain creeping and, reputedly, poisonous vines running in pasture flats, as the cause.

To the writer of the present essay, all these particulars are but guesses, most of them fanciful, and fall quite short of the *truth.* The cause is, I conceive, not difficult, taking into view the amount of botanical and chemical facts and principles, for some time, and especially, recently accumulated.

It is found that grasses, of which wheat and rye are but varieties, in producing their seeds, or corn, as termed in Europe, are sometimes in a diseased state when the seed is maturing under certain circumstances, so that many seeds in a head or spike are not natural, but a *monster* or a changed result. After a careful examination, it has been discovered that numerous seeds, in a grass head, spike or panicle are affected by a *small parasitic fungus*, so as entirely to change the form and character of each seed affected, from a nutricious *bercal* to a *poisonous and very unwholesome substance.* The spurred rye, "secale cornutum," is an example in point. Grasses growing in certain grazing lands, hereafter to be noticed, are equally affected with rye, in the ears, spikes or seed heads in many grains, a like *parasitic fungus*, so as to change the character of each seed affected, just like the "secale cornutum," or horned rye, whose character, as *ergot* and the *pulvis jarturiens* of Drs. Stearns and Aperly, is, to a considerable extent understood by the profession.

The proofs of this *poisonous principle* in diseased grass seed—grass being the direct food of cattle—are seen in various botanical authors, as well as noticed in my own researches. In Chambers' dictionary, the basis of Rees's great Encyclopedia, published in 1783, this character of the diseased seeds of grasses in general is noticed, and the very calamitous results to the poor and others from eating *rye bread* made of flour, prepared from grains filled with *secale cornutum* or *spurred rye*, the latter disclosing a virulent poisoning principle, are very particularly detailed. The poisoning is presented as quite permanent, and the diseases resulting many, and most distressing.

In Wood & Bache's Dispensatory, of 1845, page 311, it is remarked "in all the *Graminaceæ*, or grass tribes," "the place of the seeds is sometimes occupied by a *morbid growth*, which, from its resemblance to the spur of cock, has received the name of *Ergot.*" The celebrated James T. W. Johnston, F. R. S. S., Professor of Agricultural Chemistry in the University of Durham, England, invited by the State Agricultural Society of New York, delivered at Albany, the capital, a course of very able agricultural lectures in 1850. His re-

marks on this subject will be found in his published lectures, by Saxton, of New York city, page 72. He fully endorses the permanent poisoning character of the *Secale cornutum*, and the distressing results of the use of infected bread to the poor classes of Europe, in serious and long continued disease. He adds (in his own words), "it is a curious fact that this same *Ergot* is found, not only in rye, but *in various kinds of common grasses*, on which cattle feed, particularly among the rank grasses that grow in marshy places. It was immediately inferred that this kind of *fungus* thus produced in these grasses on which cattle feed, and which, in rye, produced the remarkable feverish effects on the human body, was the cause of similar effects in cattle, which, in many districts" of Great Britain, "prevails to such an extent that the farmers find it impossible to secure calves." Many other proofs, if necessary, might be adduced. My experience coincides entirely with the latter gentleman's positions. 1. That the poisoning in cattle, which affects their milk, butter, beef and calves, results from an *Ergot* or *fungus* production in *grass seeds* which the cattle, at certain seasons, eat in grazing. 2. That this poisonous principle, affecting the cattle through their products, forms, in our communities, what is designated as the cause of *milk sickness*, formerly so common all around us. 3. That the Ergot in rye results from much wet just before seed or grain setting, followed by great heat or high temperature. The spurred rye is found more especially in low or wet grounds; if at all on up-lands, in very wet seasons. The same principles hold good in regard to all grazing or pasture grasses. The seeds are found diseased or ergotised chiefly in low, wet grounds, great heat having prevailed, in rank and vigorous grass. Hence, milk sickness prevailed fearfully, some years since, up the Licking river and in adjacent lands, opposite Cincinnati, near Brookville, and in perhaps one hundred other places, where it is now unknown. Why now unknown? The cause has been removed by clearing and cultivating the land, and draining the swamps. The remedy, then is easy. Whenever drainage and cultivation are vigorously pushed, the disease is no longer found; because the strong pasture grass having air and sun light, the *nidus* of the fungus seeds is not furnished, and the fungus, which is a poison *parasite*, will not grow and ergotise the seed of the grass.

Early in November of 1839 and 40, by request, I visited a very respectable family. I found them all laid down with *milk sickness*. The house was an hospital—all were sick.

The lady was retching and vomiting in a manner unusual to me. She died during the night after. What was the condition of the lands around? The family lived in a fertile place, 1½ miles from Memphis, Tenn., on the east bank of the Wolf river. The whole space, except a small strip of land, was frequently overflowed by water. In this particular case I looked round carefully for a cause of the very distressing malady, and was satisfied it resulted from something produced in the vigorous grasses of those *low lands*, since which time botanical facts confirmed my impressions, and led to the sentiments above.

It has been noticed, that at harvest onward to the middle of winter, the disease is found in its worst form. It may have occurred in the spring, but of that I have no information. If so, it must have resulted either from some of the infected seed still remaining, or from the cattle, previously poisoned continuing diseased, grazing in the low swamp pastures.

The chemical character of ergot of rye and of grasses, I have not space to furnish. Indeed, no very reliable analysis of its poisoning parts and simple elements has been given. The smut in maize, Indian corn, is produced by a *parasitic fungus* of poisonous character. I have known many cattle, in the the fall season, to die from eating the smutted corn ears left by the huskers when gathering the corn. The ergot of rye and other grasses, as shown, is produced by a *parasitic fungus* of the same genus as the smut in Indian corn. The ergot is possessed of a concentrated poison, or that which is quite active in its operation. In the deleterous principle of both Indian corn smut, or ergot of rye and other grasses, there is, no doubt, a small proportion of nitrogen. This is found to be the fact in regard to *all poisonous vegetables*. Let the nitrogen be in large quantity, and the *vegetable article* is, in general, nutricious as tea, coffee, chocolate; but in tobacco the nitrogen is small in quantity, and the poisonous character is frightful! It ranks, notwithstanding the unnatural use made of it, as a near *relative*,* in poisonous character, to prussic acid, the most terrific poison in the catalogue, to which arsenic is almost nothing in comparison. The *essence of tobacco* and

* "Near relative." What the essence of tobacco is has not been decided, so that the expression "near relative," is in point. The prussic poison is an acid of peculiar character, not sour, but by combination with bases forming salts is its constitution decided. Nicotine C10 H8 N. by Turner; not very certainly decided, is an alkali, yet our positions above are by no means disproved.

In regard to the treatment of ergodeleteria I have said nothing; that is obvious to the experienced practitioner; it is to be removed from the system.

prussic acid are both *vegetable products.* Let tobacco users beware; the affirmation here is no *tale,* but a solemn and impressive *truth.*

In conclusion, I propose to call the poisoning principle of ergot of rye and other grasses, *Ergodeleteria,* from ergot, (French) a spur or cock spur, and Dēlētērion (Greek,) poison. *Translation:* The poisonous principle of ergot of rye and other grasses.

Correspondence.

PARIS, November 14, 1853.

Opening of the School of Medicine. Malgaigne's Paper on the Injection of Perchloride of Iron for the Cure of Aneurism. Discussion. Matters of General Medical Interest, &c. By. PROF. JOHN A. MURPHY, of Cincinnati, Ohio.

Editors of the Western Lancet:

The great and world renowned School of Medicine opened on Monday, the 7th, at one o'clock, with a eulogy on the lives and character of Royer, Collard and Richard. M. Bowchardat, the successor of Richard, pronounced, by appointment, the eulogies. From 12 till a few minutes of the appointed hour, the court and the entrance to the College were crowded with students anxious to gain admission. Among the number was your correspondent, the writer. The rush and excitement to gain admission reminded me much of the sessions of 1844-5 and 6 of the Ohio Medical College, when I was a student like all the rest, pushing and contending for the place near the door of the lecture room of Prof. Locke, so as to get the first and best seat. At one o'clock the doors were opened, when the large lecture room was filled in a very few minutes. It holds, I think, from 1000 to 1200 persons. Every place was occupied, with many standing up. The Faculty and many of the Agrege's entered, dressed in their scarlet robes and caps, preceded by the bearer of the mace, and followed by the dean, M. Dubois. It was a very fine sight, and one I shall not soon forget.

In the faculty and the agrege's there was assembled, probably, more talent than exists in any other in the world. M. Roux, now nearly 80, Velpeau, Moreau, Melaton, Andral,

Craveilhier, Adelon, Malgaigne, Dubois, Gavarret, Denonvilliers, Gerdy, besides several others, were all present. Among the agreges at present in exercise, Depaul, Cazeaux, Verneuil, Broca, Robin, Jargavay and others, were also present, each and all having distinguished themselves in some speciality, either in practice or writing. The sight possessed a double interest to me.

The ceremony was imposing, too, from the dress. The wall behind the rostrum was covered with a scarlet baize, while above the rostrum was placed the flag of France and the bust of the present Emperor. Still higher was a very fine picture representing Ambrose Pare performing the operation of amputating the thigh, and applying the actual cautery to the artery. M. Dubois, the dean, Gavarret, Adelon and M. Bouchardat, occupied the rostrum, while the rest of the faculty occupied seats in front.

The address was very excellent, especially the part devoted to Richard. He was frequently interrupted by lively applause. This is considered the beginning and opening of the vast medical machinery devoted to the instruction of students. For the benefit of your readers I copy the programme of the winter course of lectures in the school: Anatomy, three lectures per week, by Denonvilliers; Physiology, three times per week, by Berard; Medical Chemistry, three lectures per week, by Leconte, aggreges; Physique Medicale, three lectures per week, by Gavarret; Legal Medicine, three lectures per week, by Adelon; Medical Pathology, by Dumeril; Surgical Pathology, by Gerdy; Pathology and General Therapeutics, by Andral; Operations and Apparatus, by Malgaigne; Clinique at La Charite, daily, by Bouillaud and Piorry, and at Hotel Dieu by Rostan and Trousseau; Surgical Clinique at Hotel Dieu by Roux, at La Charite by Velpeau, at the Clinique of the faculty by Nelaton, and at La Pitie by Laugier. Paul Dubois gives a clinical lecture three times a week at the hospital of the faculty. Besides these lectures of the school, there are a very large number of private courses and lectures going on in the Ecole Pratique, and in several private rooms. In addition to these, and the various and excellent lectures of Valliex and Gendrin, at La Pitie, of Masionneure and Beau at Cochin, of Gairrison at the Hospital for Infants, of Lenoir and Civiale at Necker, of Robert and Barth at Beaujon, in addition to those of Cazenave at St. Louis. Young men are encouraged here in every way. The Ecole Pratique is especially designed for the cultivation and practice of young men.

There is the ordinary amount of envy, jealousy, and professional bickering which exists in all large cities. Yet, in the main, every man has to depend for his elevation on his industry, talent and honorable behavior. Admirable as the system of the *Concours* is, it is yet, I am informed, subject to abuses, and from report, is sometimes abused. It is said by certain parties here, that M. Nelaton, the surgeon of the clinique of the faculty, gained his place by unfair means. This I can not believe, for there is not, in my opinion, a more conscientious man, a better lecturer, or more safe or skillful operator in Paris than M. Nelaton. I give your readers these reports so that they may know what some of the French physicians think of the *Concours*. Another objection I have heard urged against the *Concours* is, that when once a man succeeds he can hold his place during life. It results from this, that some men becoming old cease to do honor to their place, espousing theories and practices only sensible to themselves, and in no way being profitable to the students or the patients in the hospitals. This objection, or rather evil, of the *Concours* was named to me by a very talented and accomplished gentleman, high in place. The government only has the power to remove a man from his place after he has gained it by the *Concours*. It seldom or never interferes, placing implicit confidence and trust in the results of the *Concours*. Another admirable source of instruction here is the various private courses on diagnosis which are given by the Internes of the different hospitals. I cannot speak in too high terms of these, and for those of our friends at home who have any intention of coming to Paris, I would strongly recommend them to their attention. The Internes are, as a general rule, very accomplished. All of the men who have become distinguished have served as Externes and Internes. Some of them have been Internes for eight and nine years. They cannot fail then to be very skillful in diagnosis, especially since the great pride of the French school is accuracy and precision in diagnosis.

In my last I told you that M. Malgaigne was to read a paper on the treatment of aneurism by the injection of the perchloride of iron. At the last meeting of the academy of sciences, he read a long and interesting paper on this subject. There was a great desire to hear it, and in consequence the meeting was very full of members, students and physicians. I send you a translation.

M. Malgaigne said that he wished to present to the academy some remarks on a new method for the treatment of aneurisms, presented first by M. Pravaz, now dead.

At first it was thought that M. Pravaz had discovered for aneurisms a cure as important as lithotrity for stone. Experience, however, has not proved the truth or realization of those bright hopes. There have been a few rare cures, while several cases have terminated in death. It is time, M. Malgaigne thinks, to collect all the known facts, and give them a serious study, so as all surgeons may know how to appreciate them. The method of Pravaz was made known to the academy the 10th day January, 1853, by a letter of Lallemand read before the academy. In an experiment on the carotid of a sheep, in four minutes the injection of four drops of a solution concentrated of the perchloride of iron, had transformed into a solid clot all the blood enclosed in the length of 4 or 5 inches of that artery. The amount of blood coagulated was estimated at a tablespoonful. A portion of the carotid of a horse, eight inches in length, estimated to contain five tablespoonfulls of blood, received eight to ten drops with the same results. Pravaz estimated that two drops were sufficient to coagulate a teaspoonful of blood, and that apart from the manual operation, the only thing to do was to exercise compression above the aneurism during four or five minutes. These experiments were repeated immediately after the notice appeared, at the veterinary school of Alfort, on several horses and asses with different results. The first two injections at Alfort failed—that is, there was no coagulation. The third and fourth succeeded, but a state of the artery resulted, which felt and appeared as hard as horn. In a fifth case, forty-eight hours after the injection, the artery assumed a varicose condition. The general health of the horses suffered. They suffered with fever. One killed at the 29th day after the operation, presented a considerable quantity of pus in the veins.

Pravaz became alarmed at these experiments, which threatened the future of his discovery. He then reported the autopsy of a sheep, upon which he had experimented, and which he killed two months and a half after the experiment. The carotid was obliterated for eight inches and a half, without any lesion, while the clot was almost entirely absorbed, and scarcely equalled in volume a millet seed. How did the accidents observed at Alfort arise? Pravaz, without explaining himself clearly, insisted upon the necessity of not employing more than the necessary quantity of the perchloride of iron for the coagulation of the blood, valuing it from the size of the tumor.

The essential part of the operation is to proceed so that

there shall be a slow absorption of the liquid introduced into the tumor. For his count, he declared, that for an aneurism of the size of the egg of a pigeon, he would not inject at first but four or five drops of per chloruret, unless to repeat it, if at the end of a certain time the beatings of the tumor had not ceased.

And as much as he had courage in this condition of security, he returned again a last time in saying: "We have valued, M. Lallemand and myself, at about three drops the quantity of perchloride of iron, which is sufficient to employ for the coagulation of every quarter of ounce of blood. I would be disposed yet to descend below this limit." Lastly, he takes care to indicate the manner of obtaining the solution, and the degree which it must mark on the aerometer, 45 deg.

In fact, without wishing to diminish the merit of men who had repeated at Alfort the experiments of Pravaz, it is necessary to remember that they were conducted without any reason, contrary to the rules of the inventor himself; their experiments proved the inefficiency of perchloride of iron in small doses, and its danger in too large ones; the rational injection was the only one they neglected. We will see that the surgeons who have tried the perchloride of iron on man, have likewise not escaped this fault. Let me add, however, that a first trial, attempted without any rule and with an operative process very imperfect, has given an admirable cure, and seems to indicate that the precautions recommended by Pravaz were not necessary. On the 4th of February M. Raoult had treated, by the perchloride of iron, an aneurism of the infra-orbital artery, of the volume of a pigeon's egg. In truth, this aneurism offered some singular phenomena. It is not common to meet with an aneurism as large as a pigeons egg in an artery almost capillary. No abnormal bruit was heard; direct pressure on the tumor caused it to disappear completely; the pulsations only had led to the belief that it was an aneurism. M. Raoult made an oblique puncture of a line and a half, with a sharp pointed bistoury; some drops of blood escaped from the wound, without, however, being of pulsatory nature. A glass syringe was introduced into the wound, and an injection was made, without calculating the number of drops; however, the tumor continued to pulsate in its whole extent. The next day a new injection *of ten to twelve drops* was made, says the author, but he had not any means of measuring it.

An important fact to note is, that he introduced the syringe

by the same wound; that he introduced a stylet for to destroy the adhesions; and even, he adds, *I was able to move it about throughout the whole extent of the sac.*

An aneurism which empties itself entirely by pressure, which, in consequence, does not contain but liquid blood, and which can be punctured by a bistoury and examined by a stylet, without giving a single drop of blood, is not, it must be confessed, an ordinary one.

He was, however, decieved; and M. Robert, our colleague, was the first to raise some doubts on the nature of the tumor. But the same day that Pravaz, in his communication to the surgical society, congratulated himself on the success obtained in that case, M. Raoult announced that a new tumor had appeared in the same region, with pulsations like the other, and that he did not hesitate to recognize it as a *cutaneous erectile tumor.* He persisted, however, to believe that the first tumor, with the same characteristics, was a true aneurism. The second diagnosis, appears to me, a great deal more certain than the first.

But Pravaz had announced the publication of a new case, which would show, I repeat his own words, "that *no one can pass the approximative limits* for the injection *without producing symptoms of intoxication, and without having the clot which is formed redissolved.*"

What was then this *new case?* M. Niepce had addressed one to the academy of sciences the 25th April. I will give it here, from the analysis published by M. Lallemand in the minutes of that society:

"The tumor occupied the popliteal artery. Five minutes after the injection of the perchloride of iron, the tumor appeared very hard; compression of the artery was withdrawn, and he was able to observe that the pulsations had ceased in the interior of the sac; when the syringe was withdrawn, but a single drop of blood escaped.

"The next day, and the following days, an active inflammation manifested itself in the parts. The 11th day, fluctuation having manifested itself at the internal side of the tumor, a light puncture gave issue to about half an ounce of seropurulent matter, and from that time all inflammatory symptoms disappeared.

"The 20th day there could not be felt, at the place of the aneurismal tumor, but a hard tumor of the size of a hazel nut. The cure was then obtained in as little time as it is when ligatures are applied."

The analysis of this observation leaves something to be desired. I seek, in vain, the *symptoms of intoxication* which it ought to show, according to the conscienscious Pravaz. Neither the volume of the tumor, nor the quantity of injection, nor the operative process are given. For the rest, in the sitting of May 9th, M. Lallemand communicated another observation made by M. Serres, and followed also by cure; unhappily we have but a resumè much too concise. This case was one of a varicose aneurism situated at the bend of the elbow.

"The clot was promptly hardened under the influence of the injection; the pulsations ceased in the tumor when the compression of the brachial artery was removed; the pulsations disappeared later in the radial and ulnar arteries. An inflammation sufficiently active attacked the sides of the sac, and a puncture practiced in a fluctuating point gave issue to a small quantity of sero-purulent matter. Finally, an eschar detached itself from the side of the sac without the least hemorrhage. Since then, cicatrization has made rapid progress."

Thus, in the two cases, and both veritable aneurisms, the injection seems to have procured a radical cure. However, to consider well, in the observation of M. Niepce, there was inflammation and suppuration of the sac; in that of M. Serres, suppuration of the sac and gangrene of it side, showing already that these kind of cures are not obtained without danger. Thus, far from flattering themselves of such success, Costone considers them almost as checks which it casts upon the imprudence of the operators. M. Lallemand alleges that in the operations of M. Niepce and M. Serres, there was injected at least *three times more perchloride of iron than was necessary to obtain the formation of the clot.* It must be conceived, he adds, that this excess of matter injected must be more hurtful than useful, if it is considered that the liquids which coagulate the blood, all tend to dissolve the clot already formed, and much more when one passes the proper doses.

We are in want of documents to appreciate the excess, but, on the other hand, experience seems only slightly favorable to the opinion expressed by M. Lallemand, and which was already that of Pravaz, that an excess of injection tended to dissolve the clot. Look at the case of M. Raoult, two injections for a tumor of the size of a pigeons egg; the clot was preserved. In the two others was the clot dissovled? M. Niepce found at the 20th day a tumor of the size of a hazel nut, in spite of the issue given to the pus. M. Serres saw the clot

harden promptly; and it is even probable that it gained more later, since he finished by suppressing the pulsations at first persistent in the radial and ulnar arteries.

But that which is important to add, and that which explains the extreme opinion of M. Lallemand, is that in the second case, at least, the cure was accomplished more dearly than *the minutes of the academy of sciences* could have made one suspicion. In a recent article of the Journal of Montpelier, I read that M. Serres has related his observation in the wards of Hotel-Dieu Saint Eloi; that it was not only *an inflammation sufficiently active which had rendered the surgeon uneasy, but the inflammatory disorders extremely grave, and such that the life of the member and of the patient were in a short time compromised.* Again, a case much more disastrous, since the patient died in my service, in consequence of the operation, was for the surgeon another object of alarm. A mason, aged 25 years, had, at the bend of the elbow, a pulsatile tumor of the volume of a filbert, the consequence, probably, of the wound of the artery in an unfortunate bleeding. One of my pupils practised the injection of the perchloride, this time, with the graduated syringe of Pravaz, charged with a solution of equal parts of water and perchloride of iron. The trocar arrived without difficulty into the tumor; a jet of blood was the proof. The syringe was immediately adjusted, and the operator executed, by the screw of the piston, five half turns, projecting each one drop.

The tumor continuing to pulsate, five more half turns were made, pushing in five more drops. At the same instant a very severe pain was felt in all of the arm—the tumor ceased to pulsate; ten seconds after the pulsation ceased in the radial artery, the hand became cold and of a violet color, the next day gangrene limited to the thumb. The patient was carried into my service. The next day, forty-eight hours after the operation, all the fore arm was mortified. What more shall I say? The observation has been published, but I hope still then to save the patient. Amputation, which was at first rejected, was agreed to the eleventh day, the fore arm being already in part detached by the gangrene, and after a slight amelioration, the patient died. How has such a result struck us all? There are excellent reasons to give for it. In one point of view, we have gangrene and death to succeed, also, the ligature; then again, one might say that the dose of the injection was too great, and, finally, was sufficient care taken to compress the artery above and below? Others might add

even that the solution of the perchloride of iron was not indifferent, and, although the unhappy operator was assured that his solution coagulated well, he had not indicated the degree. M. Burin-Dubuisson, a skillful pharmacien of Lyons, has only the secret of Pravaz. It was necessary to have a solution prepared by M. Dubuisson. The first objection was reasonable; the last offends by its exaggeration, even, and the field of operation would find itself very narrow, if one could not practice it but with the liquids of Dubuisson. Now this last retrenchment even is forced, and the solution of Dubuisson is also as fruitful in disasters as the others.

M. Velpeau tried it the first in Paris, on a student who had an aneurism at the bend of the elbow, the consequence of a bad bleeding. Every body knows the prudence and skill of M. Velpeau. I will say, however, that before the operation, for more security, he did me the honor to ask me the details of the presumed causes of the gangrene in the case I have reported. I was present at the operation, with a great number of physicians. More precautions were taken than laid down by Pravaz; the artery was compressed above and below the aneurism, and, for a tumor of three inches in diameter one way by three and a half the other, eight drops of perchloride brought from Lyons from M. Dubuisson, were injected. The result was observed by the great circumspection of the surgeon. No manifest coagulation was presented, and as soon as the compression was removed, the pulsations reappeared in the sac and the arteries of the fore arm.

Besides no accident, and the 11th June, twenty-one days after the first injection, M. Velpeau made another of ten drops. Assuredly, still, the dose was not exaggerated, since complete coagulation was not obtained. However, the aneurism increased in volume, and inflammation having presented itself, M. Velpeau judged it prudent to ligate the artery the 18th June, seven days after the second injection. That did not prevent the aneurismal tumor from opening, and in spite of some grave accidents, the patient was very happy in reestablishing himself.

Two days before M. Velpeau, such an attempt was made by M. Lenoir at Hospital Necker, for an aneurism (popliteal) of the size of a chicken's egg. He threw in seven drops of the liquid into the tumor; the pulsations continued, but there were no accidents, and twelve days after, encouraged by the innocuty, M. Lenoir made a new injection, throwing in sixteen drops.

There was no result, neither of a good or bad character. The failure was charged to the bad quality of the liquid. So on the 18th June, M. Lenoir took care to procure a solution from M. Dubuisson himself, and redoubling his prudence, he injected at first, six drops; the pulsations continuing he injected six more. The pulsations still continued, but the operator was not willing to go farther, and the whole amount injected was less by about one quarter than the first one. One could hope then for an equal innocuity; indeed, during six days the patient did not experience even any local pain. But the 23d of June, in the evening, suddenly dull pain in the popliteal space, chills, heat, sweating; the next day inflammation of the popliteal space, and in spite of the most active antiphlogistic treatment, he died the 28th June, ten days after the last injection.

The autopsy showed effusions of blood into the popliteal region, and the femoral vein filled with a thin sanious matter, of the color of the lees of urine. The aneurism was filled with a thick bloody substance of the same color, adherent to the sides, and more resistant at the center than at the circumference. There were a few table spoonfulls of serum in the pericardium. These two facts are too important to be passed by hastily. Skillful operators, precautions in superabundance, and in fine, such a circumspection in the dose injected, that the solidification of the tumor even was not obtained.

And again, there were accidents so grave in one case that it was necessary to ligate the artery, while in the other no accident could be foreseen. Inefficacy and peril all the time —such were then the two dangers incurred by the method. But finally it could happen that in either case, one had to do with a tumor half filled by a clot, and the injection thrown into the clot would not have been able to act efficaciously on the external liquid layer. This was most assuredly, from the details of the observation, the case of M. Lenoir, and although M. Lenoir had taken care not to throw in his injection except when a jet of urterial blood had assured him that the canula was well plunged into the liquid layer, it imports not it were to be desired, in order to judge of the utility of the method, that it were tried in a case where the aneurism should especially contain liquid blood. Very well! this case has been met with; here it is:

An individual entered the hospital of St. Andre, of Bordeaux, with aneurism of the crural artery, measuring at least three inches and a half in diameter. As far as could be as-

certained, the tumor only contained liquid blood, and in truth, at the first puncture, as soon as the trocar was withdrawn, a characteristic jet of blood escaped by the canula. M. Soule injected in all, six drops of perchloride, and he estimated that two of the drops remained in the canula. The solution was not furnished by M. Dubuisson, but it was assuredly as well prepared, for the tumor became immediately hard and shrivelled. In order to favor the condensation and the adhesions of the clot, compression was maintained for fifteen minutes; but alas, scarcely was it suspended when the pulsations reappeared in the tumor. However, moderate compression was kept up to weaken the impulse of the current of blood, and the tumor seemed to harden from day to day. As there were no accidents, the 1st of August, five full days after the first injection, M. Soule, wishing to finish the operation, made a new injection of seven drops. But this time after the injection the pain was acute, and the night was passed without sleep, the tumor inflamed and augmented in volume, the tourniquet fatigued the patient, besides complete coagulation had not been obtained. For fear of seeing an ulceration of the sac and a frightful hemorrhage, M. Soule ligated the crural artery September 6th, which was followed by a complete cure. Perhaps it will be said that the aneurism was very considerable. And thus restriction upon restriction would soon reduce this method to nothing. M. Soule has, notwithstanding, tried the perchloride of iron on a small tumor the size of a cherry, produced by the puncture of the posterior tibial artery, near the internal maleolus. The small external wound closed only by clots, and had been several times followed by hemorrhage. By the aid of a large stylet, M. Soule penetrated the sac, which was immediately followed by an arterial jet. He injected several drops of perchloride into it, he even introduced several species of charpie, saturated with this liquid, and added at last a compressing bandage. Three days after, the failure of the operation obliged him to cut open the tumor. It was then seen that the artery had been cut transversely, a circumstance the most favorable for the arrest of the hemorrhage and the obliteration of the artery. Still the artery could not be seized so as to be ligated, so compression was made at the bottom of the wound with pieces of charpie saturated with the water of Pagliari, which succeeded.

A case of the same kind has been treated by M. Alquie, clinical professor at Montpelier. The ulnar artery having

been opened by the stroke of a pruning knife, near the hypothenar eminence, a month after, a tumor of the size of a pigeon's egg existed at this point, whose pulsations were synchronous with the pulse; a little suppurating wound was present at the point of the puncture. M. Alquie carried into the tumor a slender canula, and by the aid of a glass syringe, he made an injection of five drops of perchloride of iron mixed with an equal quantity of water. At first no change was perceptible in the tumor, but during the night felt lancinating pains—in the evening of the next day he had a chill, and the fingers were swollen. On the fourth day a deep redness appeared on the hand and fore arm as far as the elbow, and the throbbing of the tumor was so strong as to threaten its rupture. They watched him constantly for fear of hemorrhage, and on the tenth day, after having subdued the inflammation, M. Alquie ligated the humoral artery. Nine days after this operation, a hemorrhage from the wound in the hand, obliged him to ligate the upper end of the ulnar artery, as well as a collateral branch quite large. But at last, the patient fortunately recovered.

Is it not a thing very remarkable that after the cure of the aneurism by M. Raoult, which was not an aneurism, and the two successful cases more or less dearly bought of MM. Niepce and Serres, (of Allais) the new method has not advanced, but retrograded by one reverse to another. There were, in truth, six new attempts, of which two have terminated in death, three required the ligature of the artery, and one in whom it was necessary to employ compression and the water of Pagliari.

Is this sufficient to fix the attention of surgeons? There have been three other attempts, to which I have not yet alluded; one by M. Dufour, surgeon of the hospital of Lectoure, after two injections into a large aneurism of the right carotid, a violent inflammation ensued, the tumor became gangrenous, it ruptured, and the patient was carried off by a frightful hemorrhage; another by our excellent colleague, M. Joubert, who will, without doubt, report the details of it to the Academy. But I have already learned from him that the member was attacked with gangrene, and the patient died. Finally, I have had my part in these failures. I have saved my patient, thank heaven! but the case in escaping the fatal issue will serve, perhaps, more than those we have passed in review, to demonstrate the danger of perchloride of iron, since even, I have made but a single attempt,

and with a dose so feeble that it did not succeed in coagulating the whole of the blood in the tumor.

Wound of the humoral artery, and median nerve—traumatic aneurism treated by an injection of six drops of the Perchloride of Iron; accidents, ligature of the artery, cure. —Victor T., employed in a manufactory of gaseous water, was occupied in corking the bottles, when one of them exploded, a piece of glass cutting him in the right arm, a little above the bend of the elbow. Immediately a jet of blood escaped in jerks to a distance of about two yards. The patient applied his thumb to the wound, until his employer could apply a compress and bandage. At the same time he felt a benumbing sensation in the hand. It was in this state that he was brought into my service, almost immediately after the accident, the 30th July, 1853.

The right arm, tumefied, offered at its inferior half, a circumference greater by two inches than that of the opposite side. The wound being uncovered did not bleed any more; it was seated a little to the inside of the artery, so that the glass in arriving at the artery, had naturally to pass the median nerve on its route. I took care to assure myself by the evidence of the patient, that it had been withdrawn entirely from the wound. There was complete insensibility of the palmar face of the tumb, of the index, of the medius, and a sensibility very obtuse in the external half of the ring finger, the other half of this finger, as also the little finger, had preserved their natural sensibility. The dorsal face preserved its sensibility every where as ordinarily. The hand had also lost its force; the patient could not flex his fingers but with difficulty, and he grasped my hand very feebly. The radial artery beat with sufficient force.

The lesion of the median nerve was manifest, and that of the humoral artery was not less so. The condition of the pulsations in the radial artery made me think that there was only a slight wound, and therefore, I wished to try if the forced flexion of the arm would not suffice to its reunion, as it sometimes does. I flexed then the fore arm and fixed it in that position by a bandage. But the patient having wished to return home, and before arriving there he perceived some blood flowing from the wound; he made compression on the wound with some agaric and bands, and returned to the hospital very soon, where I found him the next day.

The compression having fulfilled the intention, and being well supported, I left the apparatus in place, again putting

the fore arm into a state of flexion. But some pains supervening in the night, I was obliged to remove the dressing, when I found the arm swollen so as to offer a circumference six inches more than the healthy one. However, the wound did not bleed any more, I maintained the compression and the flexion of the elbow until August 6th, at which time the external cicritrization seemed solid and complete. Then the condition of the patient was the following: No change in the insensibility and the weakness of the hand, at the internal side and a little posterior of the arm, an enormous ecchymosis, of the color of the lees of urine, mounting up to the axilla, and descending some little on the anterior part of the fore arm, opposite the wound of the artery, was formed a little pulsatile tumor, ovoid, being one inch and a half in length, and a little less in width, very painful to pressure, and offering on auscultation a bruit de souffle, quite rough. In addition there was no fremitus or thrill in the neighboring veins. The flexion of the fore arm did not act on this tumor situated a little too much above the bend of the elbow. I wished to try a direct compression, but the patient could not support it; then a compression on the artery above the aneurism, but the pains prevented equally its continuation. I contented myself then with keeping the member demi-flexed, and applying on the tumor compresses wet with cold water. Before taking a more active course, I wished above all things, to bring back again the nervous functions, fearing that the suspension of the circulation, added to the paralysis, would but increase the chances of gangrene. The night of the 16th of August, the patient was kept awake by very acute pains in the right arm, above the level or edge of the tumor, but, a circumstance entirely new, it propagated itself at moments into the fingers, and the next day we observed that the ring finger had recovered its normal sensibility, and that the median also presented some little.

The 2d September, the sensibility being increased, the tumor besides being well circumscribed, I thought to prepare the patient for the operation, in favoring collateral circulation, but neither compression with a roller, nor the tournequet, could be supported, so I resolved to wait still. Finally, the 14th September, as all the fingers for several days had recovered more or less sensibility on the palmar face, the index only excepted, and flexion being established so as that the extremity of the fingers came in contact with the palm of the hand, I judged it a fit moment to practice the injection of

the perchloride of iron. The tumor was then three inches in length, by two and a half in width; it was no longer painful to pressure; it was sufficiently hard; however, it gave still to the touch, very sensible pulsations and a manifest fluctuation, and an unaccustomed bruit de souffle on auscultation.

I used a glass syringe made by M. Chariere, with a piston a vis (screw piston) after the model of Pravaz. The syringe being filled with a solution carefully prepared, I caused two assistants to establish with their fingers, a compression above and below the tumor, then I inserted the small trocar toward the superior part of the tumor; the point of the instrument having entered, but a little blood, black and thick, flowed out. A second puncture toward the middle and inferior part of the tumor, was still less happy; no blood flowed out, even after having carried the canula at divers depths and various directions. The patient did not complain of any pain. Judging the canula too narrow, I took another of a large calibre, and made a third puncture toward the base of the tumor; one or two drops of violet colored blood escaped. A fourth puncture toward the superior part of the tumor, quite near the first, gave opening still to some blood of a violet color, but in a little larger quantity. It was at that point that I made the injection. I assured myself previously of the power of the solution, in placing it in contact with some drops of liquid blood, instantly they were converted into a matter of a yellowish-brown color. Finally, with all the precautions possible, the syringe well adapted to the canula, I executed with the piston six half turns, equivalent to six drops, of which it is necessary to deduct what remained in the canula. In fine, I maintained for several minutes the compression above and below the tumor; I worked it softly in order to facilitate the diffusion of the perchloride, and seeing that the tumor did not become hard, I abanboned it to itself. However, we were forced to believe for a moment, that there had been a coagulation in the artery even, for the radial had ceased to pulsate. But that did not last but for some minutes, after which the pulsations returned as before.

Three hours after the operation I saw the patient—the tumor pulsated as ordinarily, for the rest there was no pain. The following days passed well, and I applauded myself in having escaped all accidents, and thought of making a second injection, when the 18th there appeared some pains in the tumor, which were slightly in the transverse part of it. How-

ever, there was yet very little to be remarked, when, during the nights of the 19th and 20th, the pains became violent and and continued so as to prevent sleep, and the 20th I found my patient in agony from the severe sufferings which he experienced. He said that toward seven and a half o'clock, he had felt a sensation of tearing in the tumor, and in fact it was increased until it presented a surface four and a half inches in length, by three and a half in width. He assured me, however, that he had made neither motion nor effort, and had constantly preserved the fore arm in the sling.

Evidently there had been a rupture of the primitive sac, yet one circumstance left us some hope of cure: the pulsations in the tumor were more obscure, and the pulsations were equally more weak at the radial. I only applied some cataplasms to quiet the pain. The pains became more dumb, the two following days, but the pulsations reappeared in all their force. The 24th, towards noon, in making an effort to raise himself, the patient felt a kind of a cracking, followed by the same pains as those of the 20th. The tumor was still more increased in size, and at an inch above the bend of the elbow, and quite at its internal part, it was surmounted by a little accuminated projection of the size of a hazel nut, and of a reddish violet color; the rest of the tumor was of a more lively red, and there was at the internal part a little tumefaction. The rupture of the sac at the external side appeared eminent. My interne, M. Bastien, placed, as a precaution, a tourniquet above the tumor, and kept a close surveillance on the patient till the next day, the 25th, when I found the case so urgent that I immediately ligated the humoral artery towards the middle of the arm. The operation offered some difficulty, on account of the engagement of the soft parts; but at last the artery was isolated and ligated, and immediately the pulsations ceased at once in the tumor and in the radial.

We had to struggle the following days, at first against an erysipelas of the arm, then against an articular rheumatism of the knees. I treated the one by flour, and the other by pills of veratrine, and on the 10th October all had disappeared, save a little abscess on the fore-arm. The same day the ligature came away of itself. But the new aneurism showed no tendency to become absorbed, in spite of a manifest and painless fluctuation. The 13th October I made a slight incision about half an inch in length; quite a large quantity of black, thick blood flowed out, without diminishing much the size of the tumor. Suppuration began in it, and the first incision appeared too small and I enlarged it on the 19th October.

On the 24th I perceived, between the lips of the incision, a little clot, when I seized it with the forceps, and drawing with care I pulled out an enormous solid clot, ovoid, being two inches and a half in length and two inches in breadth. I submitted it to the microscope. M. Verneuil found in it only blood globules.

The following days the suppuration, which at first abundant and sanguinolent, became by degrees smaller and of a better quality; the patient besides felt so well that he asked to go out. I insisted, in order to conduct him to a complete cure, that he should remain, but the abode in the hospital having become insupportable, he forced me to send him out the 3d November, with the wound of the tumor not cicatrized, nor was it completed yesterday, November 7th. The pulsations began to return in the radial, and sensibility of the fingers had also increased.

I do not think I have need of insisting much on this observation. In no other case was so small a dose of the perchloride injected, and the manifestion of the accidents has not permitted me to practice a second. Here, as in the case of M. Velpeau, Soule and Alquie, the ligature proved the safety of the patient; and to see the security and the promptitude of its therapeutic action it is not truly permitted to put it in balance with the injection of perchloride of iron.

Such is then, for the first trials, the statistics of the results given by these injections: eleven operations; four deaths, five grave reverses, two cures. These operations have been obtained at the price of such accidents, and with doses so large, that in place of doing honor to the operators, M. Lallemand has not hesitated to blame their imprudence. To-day, even, fear has taken possession of those who had shown the most of confidence in it. Pravaz is dead; but M. Burin-Dubuisson, upon the faith of which he reposes, has confessed himself the danger of his first preparation, which he explains by an excess of hydrochloric acid which it could contain. He wishes to-day that we should use a neutral perchloride of iron; and as it is almost impossible to preseve it at 45°, (I use one of his expressions,) without leaving an excess of acid, he has adopted the solution of 30°, in the dose of five drops for each centilitre of blood; and he promises us that this new preparation will be sufficiently energetic, and what is more important yet, will have an absolute innocuity.

Here is, than, a new period which begins. A new career which is opened to the experimenters, if they will consent to

engage in them upon the word of M. Burin-Dubuisson. The conviction and perseverance of this honorable pharmacien have their merit without doubt; but it must be confessed that they are based upon foundations quite weak. Pravaz had made at least his experiments upon animals; M. Dubuisson has made his new experiments upon blood collected in glasses.

The first clinical facts were by all means in favor of Pravaz. M. Dubuisson has also equally one, and it is important to publish it here:

"In a voluminous aneurismal tumor of the bronchio-cephalic trunc, said he, Doctor Barier, at Hotel Dieu of Lyons, has been able to inject at three different times, at an interval of fifteen days, sixty-five drops of perchloride of iron, without having the least functional trouble in the general economy of the patient."

In spite of the precision of this note, as it has been inserted without denial in a journal published by Dr. Barier himself, the 31st October, who can be disposed to give any credit to it? It is a new example of the danger of these little short announcements, which, by their inaccuracy, lead many surgeons into error.

We find in the Bulletin of Therapeutics, of the 30th October, the indispensable rectification of this observation:

"I have seen the patient, says M. Debout, at my visit to Hotel Dieu, of Lyons, in the month of August, and at that time an inflammation quite intense had attacked the tumor. Pus had made its appearance, and was escaping by two or three punctures which had been made into the tumor; happily for the patient, the accidents remained confined to the tissues which surrounded the sac, and disappeared after a certain time. The patient left the hospital; his tumor had augmented a little in volume; the pulsations in it were almost as well pronounced as at the moment of his entrance into the service."

There is another series of experiments which, without having any connection with aneurisms, have been advanced to show the innocuity of the solution at 30 deg.; it has been injected into varicose veins, and, as a learned society, very respectable, has appeared to encourage these trials, by proposing a prize upon this question, the academy will allow me to make a short digression on this subject. It is good, also, that those who wish to experiment in this way, should know what perils await them.

The Bulletin of Therapeutics has published a note from M.

Desgranges, of Lyons, the great partisan of this operation. Among six experiments, M. Desgranges counts five without any notable accidents; the sixth had an inflammation of the whole superior third of the leg, with such general accidents that the patient died the eleventh day.

This does not prevent M. Desgranges from regarding the injection of perchloride into the veins as an innocent operation. M. Debout cites, at the same time, three trials of the same kind, made at Paris by M. Follin, *with consequences so simple, that at the end of eight days the patient wished to return home.* I have informed myself in regard to these cases, and M. Follin, (and here is the note of M. Follin,) has given a reply to mine, soliciting information from him. In one of these cases, the syringe being bad did not act well; it was doubtful if a single drop of the solution penetrated the vein; there was, besides, no trace of coagulation. This first fact must be struck out. Another patient had symptoms of phlebitis, which gave rise to a fear that suppuration would result; happily the accidents were arrested. The third had a vast abscess of the leg, which, however, did not prevent the cure. On the whole, the injection of perchloride of iron into varices seems less dangerous than in aneurisms. Nevertheless, time only can learn us the value of cures thus obtained.

But for aneurisms, much as the possibility of cure by these injections may be put out of doubt, the cures have been so rare, achieved by such accidents, counter balanced, besides, by so great a number of grave results, and even deaths, that in the actual state of things, we do not think that any prudent surgeon can expose his patients to a treatment so disastrous.

M. Moreau raised himself, on this occasion, against the experiments of this kind. Experiments may be made, said he,on animals, but not on man. I approve fully the paper of M. Malgaigne; I will not make but one censure on him—that is, for not having been sufficiently severe on this method, which in eleven operations has produced four deaths, and for this reason that he did not formally proscribe it.

M. Roux applauded equally the ideas expressed by M. Malgaigne. More than all others ought the injections of perchloride to be rejected, for surgery is in possession of an efficacious means in the method of Hunter. However, it will be imprudent to prejudge the future of this means; in considering the method of Hunter as a progress upon all those which preceded it, it cannot be believed that this must be the last limit and last word of surgery on aneurism. M. Roux pre-

sented some considerations on popliteal aneurism, of which, he said, above all, that it is upon this aneurism that it would be desirable to find some other means than the ligature. In approving, entirely, the prudence of M. Malgaigne, M. Roux thought that the facts are not sufficient yet to permit us to judge definitely of its value.

M. Velpeau believed it his duty to say a word in reply to the blame, unconcealed, which M. Moreau has cast on surgeons. This word *experiment*, applied to the operations attempted on man, has always appeared to him a very bad thing. In truth, there is no experiment; we seek, when the means which we possess are insufficient, to substitute for them better ones. This arises evidently from an excellent sentiment. I have tried, among the first, the injection of perchloride of iron on man, because I saw in what had been published sufficient motives to hope for good results. The experiments on animals had seemed so conclusive, that it appeared natural to try them on man. There existed, in addition, some facts which appeared to justify these hopes.

The first attempt made by M. Velpeau was unsuccessful, but no serious accidents followed. Some time after, the pulsations reappeared in the tumor, and it was necessary to have recourse to the ligature; then inflammation came on, which led to the ulceration of the sides of the sac, and to its evacuation. I was able, then, to observe that the injection had produced the coagulation of the blood; there existed a clot quite considerable in size, which was in the sac as a foreign body. This clot, from its aspect, gave a very good idea of a kind of hair ball found sometimes in the stomachs of ruminant animals, and which would not certainly have been absorbed. It is then this which prevents the action of what may be a good remedy. Perhaps, better success will be had in small aneurisms, still it is a point on which experience has not yet pronounced.

M. Velpeau finished in expressing the regret, that these attempts have not had better results, the ligature not being innocent, and not always being a preventive of a relapse.

M. Roux argued in favor of surgeons who have believed it right to make these experiments, the difficulty which there is in certain cases of making experiments on animals. This difficulty presents itself here, where it is not possible to produce an artificial aneurism. He thinks that the kind of reprobation that M. Moreau makes upon surgeons, cannot be accepted, and that, on second thought, M. Moreau will change his opinions.

M. Moreau: My reprobation is not general; it refers only to the mode, and is based on the disastrous results of these experiments.

M. Laugier considered this discussion as a little premature, few persons being prepared with an opinion. Also, he would have desired that M. Malgaigne had adjourned his paper to a later day, drawn up as it is well. In another point of view, he had desired that M. Malgaigne should have spoken of erectile tumors, in the treatment of which the injection of perchloride of iron has had as bad results as in aneurism. M. Laugier cited the deplorable results observed by M. Laurence, in the treatment of erectile tumors.

M. Gerdy seized the occasion to raise his voice against the vicious tendencies which seemed to be introduced into surgery during several years. There is, said he, in our day, an unhappy desire; it is, instead of waiting until facts may be produced for us to appreciate the value of a new remedy, a disposition to hasten to be the first to have the honor of attaching his name to the discovery. For myself, I would not experiment on a man, still less on one of my children. This is the criterion of surgery. That which you will not do on your children you ought not to do on others.

M. Malgaigne agreed with what M. Gerdy had said. Surgical morality should not be different from universal morality. But in this case not only was there numerous and repeated experiments on animals, but there was even three cases of cure on man since the unhappy ones had taken place. M. Malgaigne did not partake of the opinion of M. Laugier, concerning the fitness of his communication. He thought that it was time to arrest surgeons in such a bad way.

M. Velpeau desired to present some considerations, but on account of the advanced hour he asked for the floor at the next meeting.

Here I will be compelled to stop, so far as giving you the remainder of the debate on this interesting question. The remarks of M. Velpeau, who made a long speech, as also those of Laugier, Gerdy, Malgaigne, all of whom spoke at great length at the meeting of the 15th, I must reserve for my next.

I may say that this question has, and is, exciting the interest of all here, and it is for this reason I have translated the long paper of M. Malgaigne.

A question of Medico-legal Jurisprudence has been lately discussed before the medical association of Paris. It seems

that it is the duty of all physicians and sage femmes, to report the name of all children born under their care, as also the name of the mother, within three days after the birth. M. Cazeaux, a very distinguished man and an aggrege of the Faculty, it seems was called to deliver a woman, which he did. The woman, it seems was not married, and did not tell him her name, nor did he demand it. After the birth of the child, he proceeded to the Mayor of the arrondisment in which the birth had taken place, to report the birth of the child. On being asked for the name of the parents, he refused to give it, saying that he would not give it. He told the Mayor that he felt himself bound to keep secret everything which transpired in his practice, whether secrecy was enjoined on him or not. The Mayor, however, fined him one hundred francs. He appealed his case to one of the courts here, and also brought it before the medical association. This association, I may observe, is formed to take cognizance of violations of etiquette, fees, and for general charitable purposes, especially for dispensing aid to the families of deceased physicians. The association fully endorsed the course of M. Cazeaux, and yesterday the highest Court of Paris decided that there was no law to compel a member of the medical profession to divulge medical secrets, whether these had been confided to him or not. M. Cazeaux had taken the ground that everything that a physician hears or sees in connection with his patient, is to be held as entirely confidential.

The number of pupils inscribed on the books of the Faculty to this date, are 1,065, of which 287 are new ones. Last year, on the 15th November, the number was 1,434, of which 480 were new ones. The diminution has been the subject of remark, and is attributed in part to the distress of a great many parents resulting from the failure of the crops.

The annual public sitting of the Academy of Medicine, is fixed for the 6th December. M. Dubois, d'Amiens, will pronounce, at that meeting, the eulogy on Orfila.

An item of news especially interesting to your western readers, I may give here. Prof. Brainard, of Chicago, is here, and has published an article in the Gazette des Hospitaux, on the effect of the injection of the lactate of iron into the arteries for the cure of an erectile tumor of the orbit, after the ligature of the carotid artery had failed. He has addressed, also, a paper on the injection of lactate into the arteries for the cure of anurism, to the Academy of Medi-

cine. It was referred to a committee which has not yet reported.

I saw in the wards of M. Nelaton, at the Hospital of the Faculty, a novel and very interesting case lately. A young girl was admitted on the 1st of this month, and gave the following history of herself. Two years ago she had a severe inflammation of the external genital organs, accompanied with a considarable running of matter. Since then she has suffered continually with an itching in these parts. On examination of the parts no trace of eczma could be seen, as had been supposed to exist before the examination. The mucus membrane of the vulva at the first view, appeared healthy, but, on looking at it carefully, some red points of a lively cherry color, were seen. These red points were situated on the lateral parts of the meatus urinarius, at about the sixth of an inch from it. They resembled the meatus urinarius so much, that one might be deceived in believing that there were several of these openings instead of one.

On pressing at the base and around these red points, some drops of pus were forced out. These points are also very sensitive to the touch. Urination is slightly painful. In his clinical lecture, M. Nelaton said it was a plain case of inflammation of the follicles of the vulva. The disease, said he, has not reached its greatest stage of intensity. In some cases it causes great pain in all the viscera of the pelvis, rendering urination also very painful. The disease has been only described by M. Robert, surgeon of Hospital Beaujon, in a paper read before the Academy of Medicine. Lotions of various kinds, as well as ointments, had been tried on the parts before her entrance, but, as in all similar cases, had failed. Nelaton said it was a matter of the first importance to remember the pathology of the disease. What is it? Nothing more than an inflammation of the lining membrane of these follicles. He proposed then to apply Vienna paste, by coating the end of a probe and passing it down to the bottom of the follicles, so as to canterize their lining membrane completely. We may look for a cure by this mode of treatment. In applying the Vienna paste, it is necessary to remember that it is more active on the mucus membrane than on the skin, and on this account it must not be applied long.

Nelaton prefers this mode of treatment to that advised by M. Robert, which consists in dividing the follicles, with a sharp pointed bistoury, and passing down a pencil of nit. argent. It is a difficult operation from the bleeding.

In the lying-in wards of the same hospital, under the care of M. Dubois, there has been an endemic of gangrene of the external and internal organs of generation of all the women delivered for the last month. Puerperal fever has also accompanied it. This gangrene made its appearance as early as sixteen hours after delivery, generally on one of the larger lips of the valva, or at the entrance of the vagina. It began with an ash colored spot, of the size of half a dime, and progressed in five cases which I saw, until the valva vagina and perineum had entirely sloughed off. Caustics of various kinds were applied, nit. argent, acid nit. hydg., and finally Dubois applied the *fer rouge*, or actual cantery. Tonics and full diet were also given. Three have died. Dubois thinks he has arrested it in the wards by preventing the students from *touching* during labor. You are aware that all the students who may arrive during a labor have the privilege of touching. He thinks that this endemic is due in some part to the frequent *touching*.

The cholera has again made its appearance here. Several cases have appeared in each of the hospitals devoted to clinical instruction. The most of them have been fatal. The treatment differs very much from ours at home. However, in my next I will give you a general resume of treatment, post mortem appearances, &c. I may say, however, that several of the cases have originated in the hospitals. Several patients recovering from typhoid fever, have been suddenly seized and carried off.

One of the nurses in La Charite, on being told to pay close attention to a cholera patient, was, in an hour after, seized with it in its worst form, and died in six hours. Three brothers, one after the other, were taken to Hotel Dieu, into the service of M. Trousseau, and died. The vomiting of almost all the cases has been of a greenish color, like that produced sometimes from calomel.

Speaking of typhoid fever, reminds me of one or two observations I have made as to its treatment. M. Valleix puts them on a weak soup (bouillon) and applies cloths wet with cold water, to the abdomen. He gives when necessary, sometimes castor oil, and again lavements of cold water. M. Rayer purges freely, and gives acids and absolute diet. Cruveilhier on the other hand, bleeds once or twice. This is, you will say no doubt, a treatment of variety enough. So far as my observation extends, I think they are at fault in withholding, in the latter part of the disease, tonics and stimulants. However, more of this in a future letter.

I have been taking a private course from M. Desmarres on the diseases of the eye. He has a very large clinique three times a week, composed of all the diseases of the eye. The frequency of cataract, amaurosis especially, is astonishing. The inflammations of the several membranes of the eye, are also very frequent and numerous. Most all of these latter are of a chronic and atonic character. I have not seen Desmarres use nit. argent. a single time. He thinks it causes great injury. Sulph. Cupri is his favorite caustic. I have heard him several times caution his class against the use of solid nit. argent in recent inflammation of the lids. Two weeks ago, on the occasion of a young child being presented to him at his clinique, he delivered quite a lecture on this point. The child was two weeks old. It had been attacked eight days before, with a purulent opthalmia of the right eye. The cornea was destroyed, with hernia of the iris, and he thought that crystaline had escaped. According to the account of the mother, the eye suppurated very much, the lids were much swollen, but the ball was clear. A physician was called who cauterized the lids, when the swelling diminished and the eye became white. Two days before her coming to the clinique, the left eye was seized with the same inflammation. The conjunctiva of both lids is very red and the lids swollen; a puriform liquid escapes in abundance from both lids. Desmarres, thinking that the cauterization had destroyed the cornea of the other eye, made numerous scarifications around the cornea and upon the palpebral mucous membrane, and prescribed repeated injections with a collyria of a weak solution of sulph. alumina. The next day the scarifications were repeated, the swelling had disappeared in great part, and the inflammation appeared completely arrested the third day. M. Desmarres said that the pencil of nit. argent is a sword of two edges, which, placed in the hands of all, is one of the most dangerous means in the inflammations of the eye. The experience which I have acquired in this respect, does not leave me in any doubt, and I do not fear to affirm that it would be a happy thing if this remedy was laid aside, in the affections of the eye, for it has been, and continues to be, greatly abused. Whether the cornea may be attacked with an abscess or an ulceration, whether the disease may be acute or chronic, whether there may be a hernia of the iris, since several hours or days, cauterization is made with the pencil of nit. argent, and that without measure, forgetting that there is another thing to do, and that

the application of the caustic is full of dangers. A patient is attacked with a cartarrhal opthalmia, cauterization is made, whether the cornea may be attacked or not, capable or not of resisting the action of a traumatic inflammation while it produces the most frequently on it the most dangerous effects. But it is, above all, in purulent opthalmia that the greatest evil with the pencil of nit. argent. has been produced, and it is certain also, that it has produced the greatest evil in the infant before us.

When the conjunctiva is touched with care, upon very small surfaces removed from each other, at the beginning of the opthalmia, there is certainly some advantage in it, for then it replaces a traumatic inflammation for one extremely dangerous. But when the crayon of nit. argent. is applied, when the purulence is declared, the swelling considerable, the mucous membrane discolored and pale, and above all, without being sure that the cornea is not already attacked, it is in truth to expose oneself to destroy the eye in a few hours. I have seen this sorrowful result several times, but never was it so evident as in a young man who, having already lost the left eye in consequence of a purulent opthalmia, was attacked with the same affection in the right eye. I was present at the consultation, at which I assisted. There was not in appearance but an intense inflammation, without appreciable alteration of the cornea, while the sight was intact. The cauterization with nit. argent was practiced largely upon the palpebral mucous membrane ; the next day the cornea had entirely disappeared, there was hernia of the entire iris, and the crystaline escaped at the moment when an attempt to open the lids.

My desire is no other thing than to put at defiance the application of the pencil of nit. argent. ; and assuredly if I could attain, that I would feel very happy. Among many others, here is an example of the sorrowful result of a case of chronic ulceration of the cornea. A little girl of seven years of age, whom I treated with a colleague in rue Juincamploix, who had at the internal and inferior part of the right cornea, a very large ulceration, transparent and chronic. There was neither distress nor photophobia, but the eye inflammed from time to time. Mild stimulants, such as laudanum weakened by water, pommades of red percipitate, of sulph. zinc, were employed without result. All these reddened the eye a little, but did not produce the necessary inflammation for the reperation of the loss of substance which the cornea had

suffered. I touched the ulcer with a crayon of sulph. copper but I did not obtain any result. I thought then of applying the crayon of nit. argent. The first time the cornea was touched very superficially without any result, and eight days after it was necessary to retouch it; it developed then a terrible inflammation, and the cornea destroyed in its internal third, allowed the iris to escape. Later, by the aid of compression, cicritrization was accomplished well, but a large spot remained on the eye, and it did not serve any more for vision, because the pupil was very small and deranged. I conclude from all this, that the cauterization is very often dangerous, and that it is a means, in the application of which, one cannot use too much prudence. I know very well that a great many practitioners will exclaim that they have assuredly cured, this one such an affection, that one such an other, by the cauterization. I will reply to them that I have, as they, and assuredly more often the occasion to arrive at an exact appreciation, and that strong in my experience, I do not apply the infernal stone but in some circumstances very exceptional, and always with the greatest reserve.

Proceedings of Societies.

Medical Society of London. November 26, 1853. Forbes Winslow, M. D., D. C. L., President, in the Chair.

Mr. H. Lee exhibited the preparation of a case mentioned by him at the last meeting of the Society, in which the profunda femoris vein, with its branches, was plugged with a mass of fibrin. This had resulted from the introduction of purulent matter into the blood from an abscess on the inner side of the thigh; and, in order to show that morbid products have such an action, he detailed certain experiments performed on animals by M. Gaspard. M. Gaspard injected into the right jugular vein of a moderate-sized dog two and a half ounces of thick fetid fluid, derived from the maceration of cabbage leaves in water at 77° Fahr. The dog became faint, and vomited several times. Some hours afterwards, there was great uneasiness and oppression, with recurrence of the vomiting and continued faintness during the day. A most copious, fetid and black evacuation took place in nine hours afterwards,

consisting of a little fæcal matter, with a large quantity of corrupted blood and mucus. This was repeated some time afterwards. On the following day the animal had lost strength, and lay on its side, or staggered as it walked. The most remarkable symptom, however, was palpitation of the heart, accompanied by a very extraordinary force and sound, such as would occur from long-continued hypertrophy of the heart, or of aneurism of the large arteries. The animal was better on the 3d and 4th days, but still there were great thirst, fever and vomiting. On the 5th day the symptoms were aggravated, with extreme weakness, a tottering gait, excessive thirst, red eyes filled with gum, nostrils swollen and obstructed, and the mucous membrane of the mouth tumid, and of violet-red color. In the middle of the day there was a liquid, greyish-white evacuation, resembling pus in its odor, consistence, and appearance, mixed with some clots of putrefied blood. Death occurred during the following night. On a *post-mortem* examination, the lungs were found of a dark color, with some black patches, but still crepitant. The left ventricle of the heart presented several brown stains, resembling ecchymoses, infiltrating its tissue. Its internal surface was of the color of lees of wine, and offered a singular contrast to that of the right side. The right ventricle contained a hard fibrinous concretion, two drachms and a half in weight, of a light, yellow color, and having the external appearance of grease. It was of the same consistence throughout, and was free at all points, except a small portion of it which was attached to an inflamed spot on the inner surface of the ventricle. No appearance of the injected fluid could be detected in the clot. It was prolonged into the pulmonary artery, vena cava, vena azygos, axillary vein, and even into the right jugular vein.

Dr. Routh remarked that, while such results had followed from some of the experiments, they were not found in all. Putrid pus had been injected into rabbits without injury, and it is well known that wounds from dissection are usually innocuous. The results mentioned by Mr. Lee must arise from other circumstances, as those of epidemic influences and bodily weakness. It is well known that hectic fever, a symptom of purulent infection, does not usually follow the introduction of pus within the system, since large abscesses are daily observed to be absorbed without any evil effects whatever following.

Mr. Lee admitted that the results from experiments were not always consistent, but since certain symptoms had followed in numerous instances, he believed that they were due to the cause indicated.

Dr. Mackenzie fully corroborated Mr. Lee's statements, and affirmed, that a vitiated state of the blood and an altered condition of the vein do induce stagnation of the blood, closure of the vessel, and phlebitis.

Dr. Tilt then read a paper on

Internal Metritis and Uterine Catarrh.

The object of Dr. Tilt's paper was to draw attention to the more obscure forms of uterine disease which have their seat in the mucous membrane which lines the neck and the body of the womb. He described subacute inflammation of the mucous membrane of the neck of the womb, contending that to that disease alone the term uterine catarrh should be applied; and showed, that by giving it to acute inflammation of the neck of the womb, the French pathologists had been led to use uterine injections into the cavity of the womb, to the danger of the patient's life, and for a complaint amenable to much milder treatment. Subacute inflammation of the mucous membrane lining the womb was said to be characterised by the usual uterine pains and hysterical phenomena, and by inconsiderable swelling, if any, of the neck of the womb, which was sometimes only painful on pressure laterally applied, the discharge being rarely muco-purulent, generally mucous, and sometimes sanious; and Dr. Tilt detailed several cases in which this occurred for years. In addition to the known means of treatment, Dr. Tilt strongly advocated the topical applicatian of tincture of iodine to the inner and outer surface of the womb—the dressing to be repeated every four or five days. Dr. Tilt stated that acute inflammation of the mucous membrane of the body of the womb could not be distinguished from the inflammatory affections of the whole organ, but that in some cases of menorrhagia this mucous membrane was alone affected, and threw off a false membrane different from the decidual membranes which have been hitherto described. Dr. Tilt proved his assertion by exhibiting a morbid specimen, taken from a young woman who died of menorrhagia under Dr. Watson. Dr. Tilt thought that future researches would show that there was a chronic inflammation of the body of the womb going on in most of those cases of dysmenorrhœa which were accompanied by exfoliation of the mucous membrane of the womb. He suggested this as a matter of inquiry, and spoke in praise of hypogastric issues in this tedious complaint. Dr. Tilt then described a form of internal metritis, to which he gave the name of hemorrhagia, to mark the symptom by which it was habitually accompanied. He illustrated

this variety by a case in which the treatment usually employed was useless to arrest the disease, astringent injections, cauterization of the neck of the womb with the nitrate of silver, as well as internal remedies being without avail; whereas, when large doses of morphine, two grains per diem, were given to allay pain and calm hysterical symptoms, the sanguineous and semi-purulent discharges were checked, and the patient recovered. Another variety of internal metritis was described under the name of "fibro-plastic," because it was characterised by the growth of fibro-plastic vegetations on the surface of the womb—these vegetations giving rise to sanguineous discharges and uterine symptoms, developed to an unusual degree of severity. With regard to the local treatment of the various forms of internal metritis, Dr. Tilt deprecated the use of uterine injections, on account of the uncertainty of their action, either in a similar set of cases, or even in the same patient—admitting, however, that they might, perhaps, be useful in some cases of the fibro-plastic variety. In that disease he recommended the careful introduction of Recamier's curette, a uterine sound a little larger than Dr. Simpson's, somewhat curved at its extremity, and hollowed out under its curvature, so as to remove the vegetations by gentle abrasion. Dr. Tilt had also found this instrument very useful in removing portions of retained placenta, the presence of which were indicated long after parturition, by flooding, by an enlarged body of the womb, and by uterine symptoms. He also mentioned sundry improvements in the construction of this instrument, which he had confided to the known dexterity of Mr. Coxeter. In exhibiting this instrument he also showed another larger instrument, which had been used by Recamier for the same purpose as the smaller, when the internal neck of the womb was widely dilated by inflammatory action—a circumstance of rare occurrence. Dr. Tilt next brought forward another plan of treatment, which he had found very successful in one case of the fibro-plastic variety, which was, after the application of the speculum, to introduce into the cavity of the body of the womb Dr. Simpson's uterine sound carefully surrounded by cotton-wool, saturated with tincture of iodine. The vegetations came away with a sero-purulent discharge after a few days; the operation was again repeated, and the patient was in a short time relieved of a sero-sanguinolent discharge, which had lasted for years, and her health was restored.

In conclusion, Dr. Tilt insisted on the very numerous instances of disease in which tincture of iodine had been, with

perfect impunity, introduced into the tissues of the body, and from that, and still more from the results of known practice, he inferred that tincture of iodine and iodide of iron, were the topical applications from which practitioners would derive the greatest assistance in the treatment of uterine diseases.

Mr. Streeter expressed his horror at the use of a large curette which the author had exhibited and Recamier had invented, for the removal of portions of retained placenta, and considered it to be a most dangerous instrument.

Dr. Henry Bennett did not understand why the mucous membrane of the neck of the uterus should be infinitely more prone to inflammation than that of the body of that organ; and since Recamier, and the French writers in general, had failed to make this distinction, he could place no confidence in their statements. He had most rarely met with the latter disease, but believed that it would be indicated by exalted sensibility of the organ, enlargement of the cavity, a patulous state of the os uteri, a sero-purulent or bloody discharge, and a marked reaction on the general health. The mere presence of hemorrhage, or of fibrinous casts, would not prove its existence, since the former attends many uterine diseases, and is a characteristic of certain idiosyncrasies, while the latter may simply be a thickening of the membrane which is usually present at the menstrual period. The treatment of inflammation of the mucous membrane of the canal of the cervix is simple and effective, while that of the body is beset with difficulty and some danger. He had known the introduction of a bougie, with the intent of dilating the canal, not only give intense pain, but induce abscess of the broad ligaments, and in general he would hesitate to manipulate on the cavity of the womb. He had employed the nitrate of silver and the acid nitrate of mercury.

Dr. Greenhalgh had frequently met with cases in which muco-purulent discharge was accompanied by symptoms of disease of the cervex uteri, and believed that uterine catarrh is due to inflammation of the mucous membrane of both the body and the canal. He also referred to Dr. Churchill's authority, in support of the statement that uterine catarrh is distinct from disease of the os uteri. In the acute forms of the disease, he would employ the hot-bath, with mercury and Dover's powder; and in the chronic state would direct a change of air and improvement of the general health. He would not affirm that the application of potassa fusa and other local remedies was improper, but he believed it to be rarely called for. As a rule, he objected to local interference.

Dr. Mackenzie stated that all mucous discharges proceed from the neck, while those which are serous or bloody proceed from the body of the womb. He had attended a case of inversion of the uterus, and had observed that irritation was not followed by a mucous secretion, but by an effusion of the elements of the blood. Fibrinous casts may be formed by the solidification of this effused substance, without the presence of inflammation. He believed that true metritis is quite distinct from catarrh, and that the catarrh may be observed in connexion with a pale, soft, smooth and cool os uteri. He believed catarrh to be due to general causes, and to be most readily removed by the exhibition of steel and other remedies to improve the health. He had found local stringents, as alum and nitrate of silver, to fail, although they had been assiduously and properly applied.

Progress of Medicine.

ENGLAND.

On the Therapeutic uses of a new Ferro-Manganic preparation. The "Saccharine Carbonate of Iron and Manganese. By Stanhope Templeman Speer, M. D., Edinburg.—The introduction of the metal manganese into the domain of therapeutics, due, I believe, in the first instance, to the Belgian physician, M. Hannon, has within the last two years been followed by a careful investigation of its medicinal properties on the part of several French physicians.

From them it would appear that this metal, when given in combination with iron, is capable of rendering signal services in those diseases where iron alone has been hitherto prescribed; and at the present moment, the ferro-manganic preparations hold a prominent place in continental practice. As I am not, however, aware that they have yet undergone a trial in this country, or at least one, the results of which have been made public, I venture to state shortly, what a limited experience of two years enables me to say upon this subject; inasmuch as during that period, I have embraced every legitimate opportunity of prescribing the combination mentioned at the head of the present communication.

In a paper published in the *Revue Medico-Chirurgicale* for June, 1849, M. Hannon first suggested the following preparations of manganese, viz: the carbonate, the tartrate, the phosphate, the neutral malate, and the iodide. With none of these was a similar salt of iron associated.

M. Petrequin, of Lyons, however, having taken up the subject of manganic preparations, published in the *Bulletin General de Therapeutique*, for March the 15th and 30th, 1852, two papers containing the results of his experience relative to the utility of the metal in question, when administered in conjunction with iron.

The preparations employed by him, consisted chiefly of the iodide and lactate of iron and manganese in the form of syrup, and the carbonate of the two metals in the form of pill.

Being desirous of trying the effects of such a combination in some of the numerous cases where iron is usually indicated, I endeavored to associate the two metals in the shape of a carbonate of the protoxide, and to retain them in this condition through the medium of sugar, as is done in the case of the saccharine carbonate of iron, very recently introduced into the London Pharmacopœia—a chalybeate perhaps superior to every other, and possessing an advantage which few practitioners will not recognize in these days of tasteless globules, namely, a complete freedom from that nauseous inky flavor which the preparations of iron usually impart to the palate.

The following is the formula I suggested, and according to which the preparation in question was made:

"*Saccharine carbonate of iron and manganese:*" Take of finely powdered sulphate of iron, ℥iij. ʒj.; carbonate of soda, ʒv.; sulphate of manganese, ʒj. ℈j.; white sugar, ℥iiss.

Dissolve each of the three first mentioned ingredients in a pint and a half of water, add the solutions, and mix them well; collect the precipitate on a cloth, filter, and immediately wash it in cold water; squeeze out as much of the water as possible, and, without delay, triturate the pulp with the sugar, previously reduced to a fine powder. Dry it at a temperature of about 120° Fahr.

The compound thus prepared, is a powder of a reddish-brown color, and devoid of all taste save that imparted by the sugar, with which the salts of the two metals are conjoined. The dose is 5 grains, gradually increased up to ℈j., three

times a day; it should be given with the meals or at least immediately after.

In the papers alluded to above, M. Petrequin, asserts that cases of anæmia, which had resisted the administration of iron alone, yielded rapidly to a combination of this metal with manganese. In confirmation of this statement, I may say, that in two cases which lately came under my notice, the one of chlorotic anæmia, with amenorrhœa, the other of uncomplicated traumatic anæmia, both of long standing, the saccharine carbonate of iron and manganese succeeded entirely, after iron alone had failed. In each of these cases, its effects upon the composition of the blood, and through this, upon the general health, were extremely rapid, thus affording a contrast to the effects of the simple preparations of iron, which, even when eventually successful, are usually slow in their operation.

As far as my own experience enables me to speak, it is in blood disease generally, that this combination will be found most serviceable, as well as in those functioual affections of a nervous type which so frequently depend upon a depraved condition of that fluid; such, for instance, as the cardiac neuralgiœ and palpitations, occurring in connection with chlorosis, anæmia, etc. In these cases it may be advantageously associated with conium or digitalis, if irritability or over-action of the heart be a prominent symptom.

The compounds of iron and manganese are also stated by M. Petrequin to be of equal value in the treatment of anæmia, resulting from intermittent fever, from syphilitic or cancerous affections, and from phthisis. In none of the three first mentioned diseases have I yet had an opportunity of testing the efficacy of the remedy; not so, however, with regard to phthisis, for of this I have, during the last two years, seen some cases in which anæmia constituted a prominent feature from the commencement of the disease, and in these the saccharine carbonate of iron and manganese, without acting so markedly as in the case of simple anæmia, nevertheless appeared to possess considerable power in improving the condition of the blood—a result which, in the anæmia of incipient tubercular deposition, is often attained with great difficulty by iron alone. The preparation which M. Petrequin prefers in this disease, is the iodide of iron and manganese; but this is not unfrequently found to produce derangement of the digestive organs—a complication of all others to

be avoided in the earlier stages of the malady in question, so pre-eminently one of malassimilation.

Being entirely free from any unpleasant taste, its administration in a simple form, may be continued for a considerable time in young females—the subjects of amenorrhœa, menorrhagia, chlorosis, dysmenorrhœa, and hysteria, when these affections are connected with an anæmic condition of the system; whereas, a preparation of strongly ferruginous savor will often, in such persons, become repugnant after a few days, and be then discontinued.

When, however, taste constitutes no barrier to the addition of other remedies, the pulv. ferri et maganes. carb; c. sacch., may be advantageously prescribed in combination with them.

I may here be permitted to digress for a moment from the subject in hand, to offer an excuse for having introduced a topic generally considered trivial and unimportant in the administration of a remedy, namely, its taste. But I would venture to suggest that the benefit to be derived from medicine, frequently depends upon the length of time during which it can be taken; and this in its turn will as frequently depend upon the amount of disgust it may produce on the part of the patient. I think I may safely say, that I have never seen a single instance in which cod-liver oil, for instance, was distinctly loathed, without at the same time proving comparatively valueless in a therapeutic point of view. The state of mind of a patient, and more particularly of a young patient, who is dreading the approach of the hour at which some nauseous remedy must be taken, is decidedly unfavorable to the development of its beneficial effects, and this is especially applicable in chronic diseases, when long continued perseverance is necessary, and when no immediate or palpable effects are to be produced by the remedy chosen. It is notorious, that in this country, little, if any, attention has ever been given to the means of rendering medicine, if not palatable, at least endurable; and I have no doubt that, in many instances, the conversion of an individual to the homœopathic system, has arisen from the inordinate quantity and undisguisedly nauseous quality of the drugs which legitimate medicine has doomed him to swallow. A change might certainly be made with advantage in this respect; in many instances pills containing powerful ingredients might be reduced to one-third their present size; and many a fluid prescription given in the dose of a wine glassful three times a day, might

be concentrated into a tea spoonful, and diluted when in the stomach. Public opinion in this country, from having for a length of time leaned toward the injurious system of constant and copious drug-taking, now shows a strong tendency to run into another extreme equally injurious—that of eschewing medicine *in toto*, and stake life and health upon certain minute bodies termed "globules," in which no power on earth can prove the actual presence of the remedy presumed to be given, and trusted to, for the removal of the disease.

To return, however, to the subject of the ferro-manganic preparations in question, I would further add, that in cases of uterine leucorrhœa occurring in pale, debilitated, anæmic females, the saccharine carbonate of the two metals will be found very useful, when given with powdered ergot of rye; the same combination will often be productive of the best effects in amenorrhœa from inertia of the uterus; and if this be accompanied by hysteric symptoms, I have found benefit from adding ℈j. of the power, or ʒiij. of the oil of Valerian, to each dose.

Again, in cases of anæmia with much debility, flabbiness of the muscles, and constipation, it will be found very serviceable when given with powdered bark and aloes.

In chronic debility of the digestive organs, with want of appetite, clean but pale tongue and lips, sense of weight at the epigastrium after eating, with tendency to acidity, gastralgia, and costiveness from loss of tone in the muscular coat of the intestine, this compound of iron and manganese has proved beneficial, when given with carboate of soda and powdered rhubarb. The above combination will also be found serviceable in the anæmia which accompanies chronic Bright's disease.

In the anemia of children, this ferro-manganic salt will be found of great utility, particularly when given in conbination with another preparation of which I have made some trial, and respecting which I would add a few words.

In a November number of the *Neue Medicinish-Chirurgieche Zeitung* for 1850, Professor Mauther, the well known and able physician of the Children's Hospital at Vienna, recommends, in the chronic anæmia of children, the extract of bullock's blood, prepared by straining the fresh blood through a horse-hair seive, and vaporating it to complete dryness in a sand-bath. This extract, when pounded in a mortar, forms a dark brown powder, void of taste or smell, and of which

from a scruple to a drachm should be given at a dose. It may be successfully administered in the following forms of anæmia, as met with in children: First, in anæmia following chronic diarrhœa; secondly, in anæmia occurring after infantile typhus; thirdly, in that which follows severe pneumonia—in such cases, if a previous tuberculous diathesis exist, it will be powerless; fourthly, in anæmia resulting from the long continuad suppuration of abscesses and scrofulous ulcerations; fifthly, in the anæmia which follows scarlatinal dropsy; and in these cases M. Mauthner considers it superior to all other tonics. In the marasmus, however, of the newly-born infants, and of those rapidly weaned, he regards it as of no value.

It is this preparation to which I have referred as affording beneficial results in many of the forms of infantile anæmia, when given (as I have hitherto done,) in combination with the saccharine carbonate of iron and manganese, in the proportion of three grains of the double salt of the metals, with fifteen grains of the *extract sanguinis bovini* in powder; the best time for its administration being immediately after each meal.

It is almost superfluous to add, that any derangement of the digestive organs should, as far as possible, be rectified before having recourse to these remedies.

Lastly, I would suggest a trial of this preparation in those forms of neuralgia where the carbonate of iron, though itself of such value, occasionally fails; and if these remarks, cursory and limited as they necessarily must be, should induce others to put this remedy to the test, in those diseases to which I have alluded, I feel satisfied that my enconiums will not be found exaggerated.

Chelenham, Sept. 24, 1853.

GERMANY.

Dr. Ehert in Berlin and Dr. Walz in Petersburg, recommend in measels to rub the body with bacon, after Dr. Schreemann's method in Scarlatina, and report the good results they saw of it, especially the prevention of tuberculosis, which so frequently develops itself after this eruption. —*Mediz. Zig. Russl.*, 1852, *No.* 50.

Dr. R. Fallot observed several times, an excellent effect

from fomentations of a decoct. digitalis (60 Grammes digitalis to 1 litre water) upon the abdomen in cases of large serous effusions into the abdominal cavity, in consequence of peritonitis. The inner use of digitalis and of other remedies had proved inefficient, and was not borne by the stomach on account of its irritability. He applied at the same time a uniform compression over the abdomen by means of bandages.—*Journ. de Med. & Chir. and Pharm. de Bruxells*, 1852, *Janvier.*

Aran recommends in Chlurosis frictions of the spine and the extremeties with spts. melissae, spts. camph., and more or less liquid ammonia, to be applied regularly morning and evening. He found this method efficient in very obstinate cases, where preparations of iron had proved useless. Sometimes he added to it injections of wine.—*Ib.*

Dr. A. Arendt collected numerous experiences on the internal and external use of creosote. Externally he recommends it in chronic opthalmia varicosa, in simple conjunctivitis, as well as also connected with ulcers of the cornea, of a solution of from 1 to 4 drops of creosote in one ounce of water. He brings a few drops twice a day into the eye. In Leucorrhœa and secondary Blennorrhæ urethræ, also in Metrorrhagiæ, he injected similar solutions of creosote, with satisfactory results. In fluxus coeliacus had clysmata of 25 drops of creosote to 2 lbs. water, a good effect. Internally he recommends it in idiopathic cardialgia of women, 2 drops of creosote in a tumblerfull of sweetened water removed the most violent cardialgic pains.—*Mediz. Ztg. Russl.*, 1852, *Nos.* 42 & 43.

Dr. Fano believes to have proved by observation and direct experiment, that concussion of the brain without material injury (sine materia) does not exist; but that in those conditions, which we call concussions of the brain, an effusion of blood at the basis of the cranium takes place, and that a sudden death or a transient disturbance of the activity of the sensorium is depending upon the lesser or greater quantity of this bloody effusion. Lanson, Chassaignœ and Fano found in the so called lighter concussions of the brain, dispersed bloody effusions of the size of a pin head or a millet seed, in the cerebral substance.—*Memoires de la Societe de Chirurz., de Paris*, 1852. *Tom III.*

Dr. Wall observed an umbilical abcess in a child 15 months old; it opened under the application of poultices, discharged a vermis lumbricaides and much pus, but no fœcal matter, then healed up.—*Zeitshe fue Weendaize in Geburtshelyer 5th Jahry, No.* 3.

Professor Pastorella supposes that the scleroma (skin-bound) of new born infants, which he saw only in foundlings, is caused by a proceeding of their unmarried mothers for the purpose of concealing their pregnancy or of destroying their fœtus. He considers the disorder an affection of the lympathic system of the skin, and treats it accordingly, for several years with frictions of blue ointment, after which a warm milk bath is administered; both are repeated every twelve hours. After the third friction the skin begins to become softer, and five frictions and baths are mostly sufficient for a cure. With this treatment two-thirds of his patients recovered, while with his former treatment he saved only one-fourth.—*Gaz. Medic. Italian federat. Toscana,* 1852.

Dr. Clerton in Dijon, reports, however, two cases of this disease, which he treated successfully with warm fomentations of decoct. cinchonæ and frictions of ungt. camphor.—*Journ. de Vorraiss Medic.*, 1852, *Nov.*

Zileppa Lussona says wine is the surest and a specific antidote for poisoning with belladonna, either by drinking it or by injecting it into the rectum.—*Annali Universali,* 1852, *Giugra.*

Piedagnel has seen excellent effect of the inner use of veratria in rheumatism. He administers it in pills, each containing one-tenth of a grain, commencing with three pills a day and gradually increasing it to ten pills, i. e. one grain a day.—*Journ. des Connaiss, Med. Chir.* 1852, *Aout.*

Phellandrin, prepared by Hulet, from the seeds of Phellandrium aquatic, caused in a dose of ten grains, nausea and distress with dogs; with birds death in 20 or 25 minutes. Devay prepares it as pain killer, internally in doses of one-fiftieth grain; externally in the preparation of 1 part of Phellandrium to 50 parts of lard.—*Bullet. gende Therap.* 1852, *Aout.*

Dr. Zappari in Turino, administered secale cornutum as febrifugum, after the example of the physicians of Padua; he gave five grains of it every hour; 15 patients out of 24 were cured by it, without any other remedy; the others took a few grains sulph. Quinine with the secale cornutum. —*Giorn. de Medic. milit del. corpo Sanit de arma Larda,* 1852, *No.* 34.

Dr. Grimane assures us that sulph. Cadmii proved not only available as an emetic, but in all other diseases where tart. emetic acts beneficially, especially in arthritis and rheumatism. He claims also the same anti-syphilitic effect for it, that corosive sublimate has, and also an anti-septic power, which recommends it for the preservation of corpses..—*Ib. No.* 48.

Reviews and Notices.

Homœopathy: Its Tenets and Tendencies, Theoretical, Theological and Therapeutical. By James Y. Simpson, M. D., F. R. S. E., Professor of Midwifery, University of Edinburgh, etc., etc. First American from the third Edinburgh Edition. Philadelphia: Lindsay & Blakiston, 1854: pp. 304.

Homœopathy has managed, by various devices, to occupy more of public attention than any other empirical system of medicine; and while it is denounced and fully exposed at one point, it breaks out at another, and thus, like small-pox, continues to prevail, although the antidote is really effectual when properly applied. It is a singular fact, that homœopathy is more at variance with all the recognized laws of organic and inorganic matter—of every principle, theoretical, speculative, and practical, known in nature—and yet many persons possessing the ordinary degree of intelligence and perception, adhere with the utmost pertinacity to the whole system, with all of its native absurdity and deformity. But when it is remembered that *credulity* is a prominent element of human nature, and that it plays a very important part in the psycho-

logical operations of many persons, (unperceived, it may be, but still potent and all-controlling,) it ceases to be a matter of surprise, that the crudities and absurdities of homœopathy find many and persistent advocates. Why marvel, indeed, that homœopathy should find adherents, when *witchcraft*, ancient and modern, could boast of its numerous votaries, and was found in the pulpit, at the bar, and in legislative halls! Nor has it yet ceased, for although the educated and refined portion of society no longer admit the witch-spells and hair-ball shooting of former times, and would not care to test the presence of the evil spirit by its specific gravity, either by a human beings floating on water, or outweighed by the Bible; it is still admitted in more insidious but equally objectionable forms. Mesmerism, clairvoyance, spirit rappings, fortune telling, *homœopathy, et id omne genus*, are but so many modified and refined forms of *witchcraft*, adorned with new exteriors, and disguised by high-sound ng and flaunting names. And thus the gilded pill is swallowed—the barbed hook, disguised with a precious bait, is eagerly gulped by the credulous multitudes.

Homœopathy is a branch of modern *witchcraft*, one of the *spirits* which mingles in the throng of grey, black and white, and which performs its full share in the great work of deception and human demoralization.

In the work before us, Dr. Simpson has not been unmindful of the relations subsisting between the wizard and the homœopathists. It is well known that Hahnemann's high potencies were supposed to become *spiritualized*, by virtue of the repeated shakin · and triturations to which their medicines are subjected. The parallelism between homœopathy and witchcraft is quite obvious, and is thus referred to by our author:

The witch-burners of the sixteenth and seventeenth centuries believed that witchcraft bestowed the property of animal transformations upon its votaries: and that those possessed of the required influence, had the power of appearing in the form of hares, wolves, cats, etc. But modern homœopathy has seriously and solemnly taught transformation far more marvellous. For Hahnemann and his strict followers in the itch

doctrine (see page 36) so far virtually uphold that the itch insect (*Acarus Scabiei,*) or its miasm, may appear both in the human mind and human body under the shape, attributes, and forms of many, many different species of disease; as Mania and Mumps, Hypochondriasis and Hysteria, Cancer and Cramps, Convulsions and Calculus, Asthma and Amaurosis, Dropsy and Deafness, Rickets and Bleeding from the nose, Palsy and Pains of innumerable kinds, etc. etc.; besides all which, it is this same insect which is the indirect or direct cause, according to Mr. Everest, of Atheism, Bigotry, the Crusades, Mormonism, Agapemone, and a thousand other sins and crimes. (See, antecedently, p. 37.) And the prevalent idea of the old witch-finders, detecting by peculiar witch marks on the bodies of the accused, the infallible presence of "the markings of Satan," was surely not a whit more ridiculous and truthless than the modern idea of Hahnemann and his disciples, detecting by its peculiar signs in a hundred different chronic diseases, the infallible presence of the miasm of the *Acarus Scabiei;* or in other words, the astounding evolutions and escapades, of that unhapp · and mischievous insect, the feats and freaks of this microscopic entomological "spirit of evil."

According to the doctrines of witchcraft, the possessed had so far some of the simplest and best established laws of physics set aside in their persons. For they could float on the surface of water, or sail in seives, or fly through the air, and were not heavy enough to outweigh the church Bible. In the same way, according to the doctrines of homœopathy, some of the simplest and best established laws of physics are set aside in the creed of Hahnemann and his followers. For the medicinal power of a drug is not influenced by the amount of the dose; or the curative effect of a medicine does not depend upon the physical quantity, bulk, or amount of it which is given. Nay, "the *less* material the medicine becomes, the *more* efficacious it proves," to use the language of a homœopathic disciple.

The great fundamental therapeutical law of Hahnemann's system is the doctrine of *similia similibus curantur*—like cures like—and this is, in truth, the basis of his whole process of curing disease. In other words, a remedy to be capable of curing disease, must be equally competent to induce the same affection. This law necessarily demands the *infa-*

itesimal doses, for it would be evidently impossible to administer *large* doses on the similia principle, for the full portions *coinciding* with the disease, would of course destroy the patient. This Hahnemann, doubtless, foresaw, and to guard against what was so necessary to be avoided, adopted the small doses. But it is curious to observe the manner in which Hahnemann first caught a glimpse of this great and glorious principle of like cures like; and it is still more interesting to follow out the subject, and finally discover the baseless character of the very observation on which his whole air-drawn system has been reared. It is well known that Hahnemann's observation, which led to his final achievement, was made on the effects of *Peruvian bark;* and he fancied that this agent was capable of *causing* intermittent fever, and as it was well known to be capable of curing that disease, he found no difficulty in arriving at his similia similibus curantur absurdity. Dr. Simpson, however, in the following simple, but masterly manner, completely demolishes this sandy foundation of the immortal Hahnemann:

Hahneman's supposed discovery, then, regarding cinchona, was this—That cinchona *cures* intermittent fever in the sick, because cinchona, when taken in ordinary allopathic doses, *gives* a healthy man an intermittent fever, or symptoms similar to it. "Like cures like." Now, the imagined universal law, "similia similibus curantur," was here, as elsewhere, built upon a premise, or supposed observation, which itself is *not* a fact. "There are," according to the often-quoted remark of Cullen, "more false facts than even false theories in medicine." It is true, as a general fact, that cinchona cures ague; but it is *not* true that the use of cinchona produces ague. There is every reason to believe that it was owing to the preconceived hypothesis in Hahnemann's own mind, that *he* got ague symptoms from it. In Britain, for example, (or in any country where there is no external marsh-malaria capable of producing ague, and hence liable to lead to fallacies in the observations,) I am not aware that such a result has been observed by any physicians or any patients. And yet there is scarcely a British medical practitioner who has not exhibited cinchona or quinine to his patients hundreds of times. Among our population many thousands of individuals have

taken the cinchona, or its concentrated principle, quinine, and the alleged result—viz., the production of ague,—has many thousands of times failed. Indeed, most of the individuals in these islands who have been repeatedly sick, (and who has not?) have taken, at one time or another, doses of cinchona or quinine as a tonic or otherwise. Has one of them ever had ague, or a disease like ague, produced by the use of this drug? I am informed that one house in London manufactures every year for medical uses about £30,000 worth of quinine. Does a single dose out of this vast quantity ever create ague in those to whom it is administered? Perhaps it may occur to some minds as an objection to such an argument, that the cinchona and quinine did not lead to this effect—the production of ague—because the individuals taking it might not be perfectly healthy at the time of taking it. But Hahnemann himself admits "that the provings or effects of medicine may be seen by watching the actions of them when given to the *sick*, particularly in chronic diseases, and even when given in doses as small as the 30th dilution." Besides, many people have taken continuous doses of quinine to acquire increased tone and strength, even after they were in a state of comparatively good health; and not a few now of our officers and others serving on the coast of Africa, and in India, have (as was first, I believe, recommended by Dr. Copeland,) taken long courses of quinine without observing ague to follow its use.

Let me repeat it, that it is an undoubted general fact or therapeutic law, that the use of cinchona or quinine does cure ague; but, observation roundly and entirely contradicts the allegation of Hahnemann, that its use can also *produce* ague. And yet this last allegation was necessary, in order that the law of "similia similibus curantur" be true. If the allegation, however, is untrue, as it certainly is, then this supposed infallible, universal law, is not infallible and universal; and in this, as in other instances, is not founded upon fact. Nor would it be at all relevant and logical to maintain, that if cinchona or quinine did *produce* ague (which is altogether questionable and doubtful) in ten or twenty exceptional instances out of the many thousands of people who yearly take it, these rare and *exceptional* observations would be sufficient as a basis and groundwork for the Hahnemannic universal law. A universal infallible law, like the "similia similibus," cannot thus admit of infinitely more true instances of exception than true instances of confirmation either in the premises upon which it is built, or in the results which it comprehends. Far

less can it be primarily founded upon a few rare and *exceptional* observations as its deliberate data or premises. Even admit, for the sake of argument, that the cinchona or quinine could, in an extremely rare case now and then—as 1 in 1000, or 1 in 100,000, or 1 in 100,000,000—produce ague, or symptoms similar to it, would the extremely rare and *exceptional* occurrence of these symptoms be any reason, on any principle of philosophy or logic, for the foundation and establishment of a universal law? An exceptional phenomenon cannot be the foundation of any universal law in therapeutics, or in any other science. The exceptional occurrence of ague symptoms when cinchona is used, (if ever such symptoms *do* occur from such a cause,) would be no adequate basis to build a universal law of cure upon.

Adieu! boasted homœopathy. The very first observation on which the whole system has been reared, is baseless as the hydrostatic and biblical tests of witchcraft, or the provings of modern spirit-rappings!

Dr. Simpson's treatise is a most searching, philosophical, and truthful expose of the Hahnemann fallacies, and cannot fail to prove eminently serviceable in eradicating the evils of that system, so far as the credulity of the age can be cured of a deep-rooted blight. We strongly commend it to those of our readers who desire a thorough refutation of a system noted for its subtlety and ingenuity, but gross fallacy. For sale by H. W. Derby & Co.

Editorial.

NEWS OF THE MONTH.

Cholera has nearly disappeared from France and England. In Paris there were 451 deaths, and 471 recoveries.

The *New York Journal of Pharmacy* contains some excellent observations on lead poisoning. The Editor remarks, that in all instances where spring water has been conveyed through lead pipes, a notable quantity of the metal has been found dissolved;

but that the largest quantity was met with in *soda water*, and all aerated waters made in leaden vessels. There is no reason to doubt, indeed, that lead poisoning occurs far more frequently than is generally believed.

The *Boston Medical and Surgical Journal* has recently received the addition of an assistant editor. Dr. George S. Jones has become connected with it, and will aid Dr. Smith, the latter having been elected Mayor of Boston.

During the year 1852 there were 843 deaths from Scarlatina, in the State of Massachusetts.

The *Stethoscope*, (Va.) has been purchased by the State Society, and is henceforth to be its organ. We doubt the success of society journals, but we hope this one may do well.

An Italian physician has proposed to introduce a febrifuge agent by inhalation, and thus to impart a rapid action in cases of great danger. The new agent is called "Kinic Ether;" but it remains to be established how much febrifuge properties it may possess.

Belladona has been employed, with alleged success, in mercurial salivation.

The chair of *Medical Chemistry*, in the School of Medicine of Paris, has been abolished, and *Pharmacy* substituted. M. Soubeiran is the occupant.

The sum of 100,000 francs, ($20,000,) has been placed in the hands of the Academy of Sciences, Paris, as a reward for the person who may be so fortunate as to discover a *cure for Cholera*. It is probable the money will long remain unclaimed!

The Medical Staff in the Turkish army complain of want of respect and poor accommodations, and as a consequence are leaving the service.

It will be seen by our French Correspondence, that M. Cazeaux's refusal to reveal a *professional secret*, has been fully sustained by the highest judicial tribunal. The course pursued by the physician, and the decision of the Court, are in the highest degree commendable.

A case of suicide by voluntary combustion, is reported in a

French journal. The monomania deliberately arranged the faggots, and ultimately consumed his body.

Dr. C. D. Robinson, of Almond, N. Y., (*Buffalo Med. Jour.*) strongly commends the use of *opium* in typhoid fever. His doses varied from a half to four grains, repeated every four or six hours. He expresses the opinion that when given at the onset of an attack, it will *arrest* the disease, and, at a later period, is still highly beneficial, and greatly curtails its duration. We have often used opium in continued fever, but with only *palliative* remits, certainly we have not seen it *arrested* by narcotics. We hope the observations of Dr. Robinson may prove well founded, but fear they will be found erroneous.

A bill is before the Legislature of New York, and has passed the Senate, entitled a "Bill for the promotion of Medical Science." The *Buffalo Med. Jour.* regards the bill as important, and expresses the opinion that it will prove highly beneficial to the profession. Other States should follow the example.

Dr. Durgin, of Portland, Maine, (*Nashville Med. Jour.*) claims to have cured typhoid fever with quinine. This is an old story, and doubtless a mistaken one. We see no evidence in Dr. D.'s cases that the disease *was* typhoid fever.

Dr. Westmorland, (*Ibid,*) has furnished a new diagnostic sign of typhoid fever. He states that, nearly constantly, tenderness on pressure will be found, "at or near the upper part of the cervical spine." A dull pain in the back of the head often accompanies the tenderness. He recommends blisters over the point of tenderness; and, believing the disease to be largely *nervous*, employed alcoholic stimulants internally. He suggests, also, whether such stimulants may not act as prophylactics, on the same principles that they neutralize other poisons. This accords with Dr. Todd's notion of giving brandy in typhus.

The mortality in Philadelphia, for the year 1853, was 9744, or one in 42½ of the whole population, which was a decrease of five per cent. as compared with 1852.

The *Western Journal of Medicine and Surgery* comes to us much improved in typographical appearance. The improvement will doubtless be appreciated as it deserves.

In the treatment of lead disease, the effects of iodide of potassium have recently been carefully observed in the New York Hospital, (*N. Y. Med. Times*). Dr. Swift states that the urine was carefully analyzed by Prof. Outrane, and in thirteen cases lead was found to have been eliminated. This appears to favor the opinion that the iodide of lead is formed, which dissolves in an excess of the iodide of potassium, and in this soluble state is eliminated. It has been stated, however, that the iodide has appeared to free the system from the influence of lead, without that metal being found in the urine, although the iodide itself was eliminated by the kidneys. The presumption is strongly in favor of the opinion that a soluble iodide is formed.

The Paris correspondent of the *N. J. Med. Rep.* states that M. Leroy treats typhoid fever with cold water, applied by means o compresses to the abdomen, renewed every fifteen minutes or half hour, and one or two bleedings in the beginning. This contrasts strongly enough with Dr. Todd's *brandy* treatment!

S. W. Butler, M. D., has become associate editor of the *New Jersey Med. Rep.* Dr. Parish has removed to Philadelphia.

VACCINE VIRUS.

We have numerous calls from the profession abroad for *vaccine virus*, which we entirely unable to supply. It appears that smallpox is prevailing in many sections of the country, and the demand is great for the preventive. Those who wish to obtain a supply, can generally secure it by addressing Dr. W. B. Chapman, Cincinnati, and inclosing one dollar.

NECROLOGICAL RECORD

Died.—In New Orleans, Dec. 1st, A. Hester, M. D., Editor of the *New Orleans Med. and Surg. Jour.* Dr. Hester was a valuable member of the profession, and it is with extreme pain we announce his death.

In Philadelphia, Jan. 4th, Samuel McLellan, M. D., in the 54th year of his age.

In Boston, Dec. 20th, Dr. Josiah E. Flagg, an eminent dentist. He was a victim of the *spirit rapping mania.*

GRADUATES.

SESSION OF 1853—'54.

At a Public Commencement, held on the 28th day of February, 1854, the degree of Doctor of Medicine was conferred by JOHN P. FOOTE, Esq., President of the Board of Trustees, upon the following gentlemen; after which the Graduates were addressed by the President, and a Charge was delivered by Professor AMOR.

NAMES.	RESIDENCE.	SUBJECTS OF THESES.
BLACK, WILLIAM	Ohio.	Acute Dysentery.
BOBBS, ANDREW J.	Ky.	Circulation of the Blood.
BOYD, B. H.	Ind.	Typhoid Fever.
BRENNAN, THOMAS	Ohio.	Physiology of the Blood.
BYLAND, JOHN C.	Ky.	Dysmenorrhœa and Treatment.
CLASON, THOMAS S.	Ohio.	Acute Pleurisy.
ELLIS, H. E.	Ind.	Dysentery.
HALLOWELL, J. Jr.	Ohio.	The Urinary Organs.
KOEHNE, HENRY T.	Ohio.	The Diseases of the Periosteum.
MARTIN, JOSEPH S.	Iowa.	Organic or Life Forces, Vegetable and Animal.
McCORD, DANIEL O.	Ill.	Milk Sickness, or Trembles.
McGINNIS, A. B.	Va.	Iodide of Potassium.
REDDICK, P. L.	Ky.	Acute Gastritis.
RIEMCKE, J. C. H.	Ohio.	Diabetes Mellitus.
RIGDON, WILLIAM W.	Ind.	Erysipelas.
SCHONBEIN, ADOLPHUS	Ohio.	The Therapeutical use of Iron and its Preparations
SCOTT, S. S.	Ky.	Acute Pericarditis.
SHIELDS, JAMES Mc A.	Ind.	Responsibilities of the Practitioner. [of the Lungs
SMITH, J R.	Ohio.	The Methods of Physical Diagnosis in the Diseases
WHITE, JOSEPH N.	Ohio.	The Whole External Universe is Man's Enemy
WILSON, JOHN M,	Ky.	Respiration.
WOLF, CYRUS N.	Ohio.	Spermatorrhœa
WRIGHT, JOHN	Ind.	Diffusion of Gases.
WRIGHT, J. JoEL	Ia.	Vis Medicatrix Naturæ.

HONORARY GRADUATES.

DR. WM. BALDWIN, of Missouri.
DR. C. G. GOODRICH, of Ohio.
DR. W. P. JONES, of Tenn.
DR. PORTER, of Ohio.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL AND PRACTICAL ANATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY RESIDENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

No. 4. CINCINNATI, APRIL, 1854. Vol. XV.

Original Lectures, Essays and Communications.

Cold as an Anæsthitic Agent. By Thos. Wood, M. D.

When we reflect that every person has experienced the numbing effect of cold on the surface of the body, and experienced the complete insensibility to slight injuries done to the skin of the fingers and hand while exposed to a low temperature of the atmosphere, we are surprised that the idea of using cold in surgical operations has been reserved through all past time, to become a discovery of the present age. It is strange, but true, that the investigating mind in search of an undiscovered principle or fact, often looks far beyond its object, into the obscure distance, and hence fails to detect what is near and obvious: like the untrained miner, in search of the secret treasures of the earth, who fruitlessly delves into the chaotic mountain mass, while he treads the undiscovered golden sands beneath his feet, in his daily walks over the plain.

Since the introduction of cold for the purpose of destroying the pain of surgical operations, I have used it quite freely in various cases. In most, it has more than met my expecta-

tions, while in some it has entirely failed, or but partially relieved the suffering.

It is not my present purpose to give a detail of the cases in which I have used it, but rather to give the rules gathered from my experience in its use, and indicate the class of cases to which it seems best adapted.

The degree of cold required to destroy the sensibility of a part is but a little above that of the freezing point of water, and it must be obvious to all that this degree of temperature can not be with impunity extended over a large surface of the body, or made to penetrate to a depth much below the surface in any of the more vital regions; hence its use is naturally restricted to the minor and more superificial operations, and can never take the place of chloroform or some of its kindred agents, in operations involving the deep tissues of the body.

To operations upon the surface, such as removing small warts, tumours, and nævii, or other excrescences from the skin, it seems peculiarly adapted; and for destroying the pain in the extraction of diseased or offending nails from the fingers or toes, it is far preferable to chloroform. First, it is to be preferred for the reason that in its use there is no danger of fatal injury to the constitution, as in chloroform, for its effects are purely local and circumscribed; and, second, because the insensibility is more complete than is ordinarily obtained by chloroform, and is fully equal to the most overwhelming dose. I have repeatedly witnessed the most perfect composure of countenance in my patients, while a nail of the toe or finger was rudely torn, with a strong forceps, from its matrix, without the least exhibition of a sense of pain, or a consciousness of the progress of the operation, except from sight.

It acts well on the skin, where a small portion is to be removed; but in plastic operations I would not use it, as the refrigeration necessary to remove the pain might so destroy the vitality of the flap, that direct union (upon which success in these operations wholly depends,) would not take place.

It has failed in my hands to be of any service in removing hœmorrhoidal tumors, although, according to some of the European surgeons, it has answered well for them in operations on the anus.

In one case I attempted to remove a string of venerial vegetations from around the verge of the rectum, but was unable to get the part sufficiently chilled to even lessen its sensi-

bility, and I was finally obliged to use the chloroform before the operation was completed.

The failure was, doubtless, owing to the rapid supply of heat to the part from the highly vascular organs in its vicinity, and the difficulty of conducting it away rapid enough to reduce the temperature in the tumors to near the freezing point; and this difficulty, in all probability, will ever prevent its successful use in operations on the painful tumors of the anus and rectum.

Cold has also failed to give much relief from the pain of opening paronychia.

While it numbs the surface of the finger, it does not lessen the sensibility toward the bottom of the wound, even when the application is made a considerable time previous to the use of the bistuary.

To chill a part that is to be subjected to an operation, for instance, a finger or toe, it is only necessary to get some pounded ice or snow, and mix with it some common salt, and apply it, taking care to not extend it much beyond the region to be operated on. From three to four minutes will mostly suffice to remove all feeling from the attachments of a toe nail.

It is no matter how rapidly the temperature is reduced, but after the operation, it is very essential that it should be raised cautiously and slowly up to the vital standard again. To effect this object safely, a towel or large cloth should be saturated with cold ice-water, and allowed to remain on the part until reaction is fully established.

Dysentery—particularly as it is prevalent in Montgomery county, Ohio. Read before the Montgomery county Medical Society, at its February Meeting, 1854. *By* I. A. Coons, M. D.

The disease I propose to discuss briefly at this time, has received various names by different authors—such as colonitis, colitis, and, in common language, flux. This affection, and its successful treatment, is the more important to us, because of its frequent epidemical occurrence in this county, and its extremely fatal tendency in some neighboring localities. All dysentery may be divided into simple and complicated, in degree of severity, and into epidemic and sporadic, in re-

ference to the number attacked. The first division appears to be all that is necessary to a proper understanding of this affection, and if correctly traced, will lead to its successful treatment. Inflammation of the mucous membrane, of the large intestines,, especially of the colen and rectum, attended by the following symptoms, constitutes flux; permanent pain in the lower portion of the abdomen, with tenderness, on pressure, over the region of the colen. Tenesmus is invariably present, and is one of the most distressing symptoms of the disease, frequently causing prolapsus ani, and doing other violence to the surrounding soft parts.

The discharges from the bowels in dysentery are very frequent, and consist generally of mucous and blood, in various proportions, sometimes one predominating, and sometimes another.

Large quantities of blood discharged from the bowels in this disease, denote a high grade of local inflammation, with extensive lesions of the internal coats of the colen, especially if we have mixed with the blood a substance closely resembling the scrapings of hog's guts.

In slight cases, the stools consist principally of mucous, streaked with blood; and in more severe ones, of the simple form, it is a favorable indication to see the discharges assume more of the muco-purulent, and less of a bloody appearance.

Simple dysentery is seldom attended with much febrile excitement; but there is often present, in nervous patients, a frequent and somewhat excited pulse, caused by the excessive tormina nearly always present. I will name a few symptoms of complicated dysentery; but it will be seen that they depend entirely upon the part affected, and the extent of the lesions. For instance, a simple case may take on an unlceration of the bowels, become chronic, and be characterized by a low grade of fever, resembling typhoid. We may have extreme tenderness on pressure over nearly the whole region of the abdomen, with a high grade of febrile action, and a disposition to discharge only the lower portion of the bowels, pointing to the outer tunics of the intestines as the affected part. Again, we may have fullness of the abdomen, dry tongue, painful dyspnea, and an anxious countenance, denoting serious affection of the peretoneal covering of the large intestines. The symptoms may go to show that the liver is implicated; but I think the importance of the liver in causing trouble in this affection. is entirely overrated.

I have heard physians say that flux was nothing but a bilious diarrhœa; but so far as my experience goes, I find it to be quite another matter, as I have found the liver seldom implicated in this disease. I do not believe, that the liver has anything more to do in producing simple flux than it has in causing pharyngitis. Dysentery is almost always preceded by diarrhœa. The diagnosis of this complaint is not difficult in its simple form, but may be rendered somewhat obscure in protracted cases where other diseases appear to be present. The etiology, or cause of flux, has occupied considerable attention of different writers, some attributing it to diet and mode of life, some to climate and atmospheric vicissitudes, while others think it depends upon the same malaria that produce periodic fevers so modified that instead of ague we have dysentery.

There is a region of country in the middle and north-western portion of Montgomery county, Ohio, very nearly bounded by the following towns and their immediate neighborhoods, Liberty, New Lebanon, Amithy, from Amithy down Wolf-creek, within three or four miles of its mouth, thence south-west to a point three and a half miles west from Dayton on the Eaton pike, thence a little south of west to Trytown, on the Germantown pike, and from thence, in a semi-circular direction to Liberty again, with the middle convex portion of the semicircle pointing south-west. The district bounded as above, is composed of high lands principally, having no bottoms, excepting a few small ones along the head-waters of Wolf and Bear creeks. This part of Montgomery county has been severely affected with dysentery for the last seven years, until last year, commencing about the first of August, and lasting about two months, reaching its hight near the first of September. It appears to have prevailed epidemically in this district for six years in succession, and very decideely so in the falls of '49 and '52. Last year there were but few cases in this section of country—not more than eight or ten—while in the season of '52 there were about 150 cases, and nearly as many in '49.

Dysentery, as prevailing in this region already described, was of the simple variety, with few exceptions, and out of 50 cases coming under my care in '52, there was but one death, showing the mildness of the disease.

The cause of flux within the boundaries as above given, appears to have been endemic, and consequently could not have been diet, mode of life, or the whole county, with those

adjoining, would have been affected also. It could not have been climate or atmospheric peculiarites, for the same reason; neither could it have been a malaria identical with that of intermitting fever, for ague is a very rare disease in this dysenteric location. We occasionally meet with a sporadic case, but it has not prevailed, epidemically at least for the last seven years—it is not that part of Montgomery county where we would go to see intermitting fever.

There is no doubt that climate, mode of life, etc., have a modifying effect upon flux, and the cause of producing it, but the disease appears to be caused by a *virus* peculiarly *its own;* and I do not see why its cause should not be as separate and distinct from intermitting fever as from inflammation of the pharynx, for its symptoms (flux), no more resemble ague than the smallpox. It is true that flux and ague may occur in the same locality, and it is also true that they may not, as in the above instance.

Measels frequently exist in the same locality with intermitting fever, and a patient may have both diseases at the same time, but we would not pretend to say the cause of the one was the cause of the other.

While the disease prevailing in the middle and north-western portion of this county, where there is seldom any ague, was characterized by its mild symtoms and favorable termination, there was an epidemic, last year, in the neighborhood of Miamisburgh, very limited in extent, confined principally to an aguish district. This epidemic was of the complicated variety, with a marked tendency to prove fatal. Whether the malaria of intermitting fever, in the last named district, had anything to do with determining the variety of the affection and the extent of its mortality may be a question. The treatment of any particular case of dysentery, will depend upon whether it be simple or complicated. The indications of cure in simple flux are nearly always the same; and are, first, to allay pain, (which is always present), by the administration of opiates and warm applications to the abdomen, with rest in the recumbent position. The second indication is to produce an alterant action on the mucous membrane of the colen and rectum, and reduce the local inflammation by the administration of calomel in small doses, and where there is much febrile excitement, minute portions of ipecac; blistering may also be used to meet part of this indication in obstinate cases. The third indication is to produce natural stools, ond evacuate the bowels of any retained matters from the upper and

middle portions, and arouse the action of the dipuratiry organs by the use of castor oil and spirits turpentine. Fourthly, to check the tenesmus and frequent discharges by giving act. plumbi, cret. prep., and morph. Astringent injections may also be given in obstinate cases.

The indications of the same, in complicated dysentery, as in simple, with the addition of the complications, which will have to be prescribed for according to their locality and severity.

I wish to say a few words in reference to the treatment of children in this affection. Owing to the predominence of their nervous system, they will bear neither opiates nor blisters well, and if given at all, it should be with great caution, for I have seen bad effects from their use, throwing the little patients into distressing convulsions, followed sometimes by speedy death. I have seen more harm than benefit from the use of injections in small children. They appear to increase the tenesmus by the pipe of the syringe and the body of the injection coming in contact with the extreme sensitive surface of the rectum, being seldom retained more than a second or two.

When called to treat a simple case of flux in an adult, I administer, every three hours, a powder composed of calomel grs. ii., act. plumb. iii. grs., morph. 1-8 gr., until four powders be taken. About three hours after giving the last powder, I order one tablespoonful of castor oil, and a teaspoonfull of turpentine spirits, mixed with a few drops laudanum. After this has operated pretty freely by producing full stools, I order a powder, given every three hours, or often enough to allay pain, and check the frequent discharges, composed of, morph. 1-6 gr., cret. prep. iii. grs., act. plumb. iii. grs. If there is much febrile excitement, small portions of ipecac may be added.

The indication of treatment in complicated dysentery are the same as in simple, with the additions of the complications. These latter will have to be treated according to their symptoms and locality. It is very seldom the above course of treatment, once applied, will not effect a cure, but it may be necessary to give the hydg. sub. repeatedly, and to administer oil or turpentine every two or three days, unless there are free natural discharges from the bowels.

Flux appears to have no certain duration, or particular stages through which to pass, but it may last from a few days to several weeks. The average duration of the disease, as it

prevailed in the portion of this county already named, was about eight or ten days, in the simple form, but much longer in the complicated. It is frequently necessary to continue the treatment proposed, to meet the last indication, for several days after the active symptoms have passed, in order to counteract the tendency to tenesmus and frequent discharges.

If there is any disease that requires a continual and persevering treatment, it is dysentery.

Correspondence.

PARIS, December, 1853.

Continuation of the discussion on the Perchloride of Iron.—Letters of Follin and Ricord on Syphilis.—Puerperal Convulsions—Cholera, its Treatment and Mortality.—By JOHN A. MURPHY, M.D., *Prof. Mat. Medica, Miami Medical College, Cincinnati, Ohio*

Editors Western Lancet:

The discussion of the cure of aneurisms by the injection of the perchloride of iron into the sac, having occupied several sittings of the Academy since my last, has finally been brought to a close. The members seem to have become tired with it; for, at the last meeting, in November, the President announced it to be in order, no one arose to speak. This is not by any means the last of this question. The discussion and opinions of some have had the effect to stimulate those already engaged in experimenting, and of encouraging others to begin.

The discussion has from the beginning been conducted with great spirit. Indeed, during one or two of the meetings, some considerable feeling was manifested by Velpeau, owing to some remarks of M. Gerdry. The latter censured, in the strongest terms, the course pursued by several surgeons in their bold, reckless manner of operating. He announced the proposition, that every surgeon before he performs a new and dangerous operation, ought to ask himself if he would allow the operation to be performed on one of his children. This, he said, was the touch-stone of this operation, as well as of all new operations. The surgeon, said M. Gerdry, who was

not willing to have a new and dangerous operation, one, too, which had never been performed before, made on his own child, must be regarded as guilty of violating surgical morality. For there is, said L. Gerdry, a surgical morality, as well as a universal morality, M. Gerdry is a tall man, with a sickly irritable face, (the result of renal disease probably, from which he is suffering now), and whose manner of speaking is very emphatic, and at times sarcastic. M. Velpeau imagined that Gerdry's speech was aimed at him, (probably from the fact that they are not on the very best terms), and replied with some tartness. Velpeau's reply to Moreau was also keen, and somewhat severe. Toward the close of the debate, at the last one or two meetings in November, M. Malgaigne delivered himself very decidedly and emphatically against the perchloride of iron. More, he said it was dangerous, unjustified, inexpedient, and that those who would continue to operate by it, must be regarded as highly censurable. Malgaigne is the best speaker in the Academy, as well as being the best lecturer. He is regarded as the best medical and surgical critic in Paris. The Academy refused to give a final opinion on the question; the disposition being evident to wait for the development of more facts on animals by the new method. M. Villette, I may say, (whose successful operation is referred to further on), has been very happy in being able to make a post-mortem of his patient, who died several weeks after the operation, of an acute discase, in no way connected with the aneurism, which was cured. On the first of this month, he transmitted the artery from Lyons to the Academy. It showed that there had been a perfect cure.

Some attention has been directed to the English, or rather I believe, the Irish method of treating aneurism, by compression. It is probable, I think, that experiments will be made with it. This question is an interesting one, to physicians, as well as surgeons, for it points to the realization of the idea that the blood may yet be medicated for the care of other diseases than its vessels.

I have taken the liberty of sending you the reply of Ricord to M. Follin, in defense of his doctrines. I hope your readers will not grow impatient with me for giving these letters. The whole subject of syphilis is with a part of the profession here still *sub judice*. Ricord has a large party, and still defends his favorite theory with all the wit for which he is so celebrated. By the way, M. Ricord purposes visiting the U.

States next year, where I have no doubt he will meet with that reception he so richly deserves.

He has, I am told, the largest business in Paris. M. Velpeau has just published a work on the diseases of the female breast and mammary region, which must command the attention of the profession, both in Europe and America.

He states, that it is founded on more than twenty-five years of experience in the treatment of the diseases of the breast. "A service," says he, "in the large hospitals, a consultation always very large, and a practice very extended, has all owed me to collect on the whole subject, more than two thousand observations."

This is the first French work on this subject, and there is no doubt it will take the place which the reputation of the distinguished surgeon has with his profession. He is evidently writing for posterity, as age is warning him that his time and place cannot remain to him many years longer. He is at war with the micrographs on cancer and cancroid, and especially with the doctrines of M. Lebert, in his works on cancer. You are perfectly acquainted with the doctrine of Lebert. He says that there is a specific cell in cancer, which is not seen in any other tumor. To this, Velpeau, in his book, replies as follows: "I have proved, I believe, without answer, contrary to the pretension of the best micrographs—1st, that the *cell* called *cancerous* is not the specific element of cancer; 2d, that this cell has been found in tumors non-cancerous." The micrographs form two parties on this subject of cancer-cell at present. Virchou, a German, differs with Libert, Robin, Follin, and Verneuil.

Still more, I believe it is true that the fewest number of urgeons here indorse the doctrine of the micrographs on the cancer-cell. However, I must hasten on, or you may think I intend to overlook the principal point of this letter—the perchloride question. Before, however, I touch it, I may tell you that Chelius, the great leader of German-surgery, has been here for a couple of weeks. I saw him at La Charite, listening to a clinical lecture of M. Velpeau, on a cancerous tumor of the breast, which he excised. He is one of the finest looking medical men I have seen since here. I suppose him to be, from his appearance, quite seventy, if not more. The Society of Surgery gave him a banquet before he left. Among the many toasts and speeches made, the one by M. Ricord deserves mention. He arose and said, "To

our venerable master; to our *young confrere*," M. Roux. He proceeded to deliver an eloquent and witty speech on the past life of Roux.

Roux, although an old man, still preserves all the freshness and activity of one much younger, with the single exception of his hair, which is quite white.

He must soon cease to operate, as his eyes are failing,. He cuts still, however, with the ardor of youth. He will soon put to press a work entitled, "Forty years of Surgery," which will no doubt be very interesting.

On the 6th of December, M. Dubois, (d'Amiens), delivered the eulogy on the life and character of Orfila, before the Academy of Medicine. It was an eloquent effort, and did full justice to the life of that great man. The great predominant idea of Orfila, was to succeed. His ambition knew no limits. He never devoted his attention to anything else than his profession. His success was without parallell. He never undertook anything in which he did not succeed, and in this respect presents an example unequalled. There was a large audience of physicians, citizens, and ladies present. I would like to give the latter part of the address, but I can not, as this will be too long.

But to the discussion on the perchloride in question.

Academy of Medicine, Nov. 15th.

After the reading of the minutes, M. Velpeau took the floor, and said:

In the last meeting I said to the Academy, that, detained by one of the committees, I could not be present at the reading of the paper of M. Mulgaigne. I arrived only at the moment when he finished, so that I only heard the conclusions. It is difficult to discuss a subject imperfectly known. In another point of view, the question seems to me very important, and as M. Malgaigne has communicated his paper with the avowed purpose of hearing the Academy pass its final opinion upon the question, I have found that it was about to act a little too fast in a very grave matter. It is for this reason I asked that the discussion should be continued, and since the Academy has been willing to gratify the desire I have manifested, I am going to discuss the question in a more detailed manner, and explain certain points which have only been touched upon.

I will say at first that we labor under a great illusion if we imagine that such a question can be settled in one day. It will be with this, as with a great many others, whether the

Academy may be favorable to it or not, it will not hinder the scientific world from occupying itself with it. Without doubt it will regard the action of the Academy, but still one stroke will not extinguish the merits of the question. I do not wish to say that the initiative of the Academy may not have any utility, and that the influence of its decisions after important discussions may be useless — no; this initiative, these discussions, and these judgments, have the advantage of putting the public *au courant* of all which is done and said on such or such a question, and to explain it perfectly; but the Academy may proscribe experiments, condemn a method, yet that will not prevent other persons from experimenting, especially when evidence is not given. Now it is well known how rare it is for everybody to see things alike. This explained, I find myself opposite another obstacle which throws itself across the way.

It has been often remarked that there are persons always disposed to blame, and who seize, as much good fortune, on all occasions which offer to them. This is a disposition very natural to the human mind, of which we all have our part in a greater or less degree.

Now, as certain condemnations could have for science some unfortunate consequences, more than for individuals, I am very happy to present here a small explanation. At the last meeting a censure was expressed, and although it was indirect and skillful, was not less a real censure against the surgeons who have experimented with perchloride of iron in aneurisms, and even against all surgeons, who were accused of being too bold. I do not believe that this is a good philosophy, and I think we must restrain a great deal of this kind of reprobation. I do not fear for myself the reproach of boldness. I believe myself as prudent as any one may be, and to have for my patient as much care and solicitude as any other surgeon. I concern myself very little for such a reproach—it will not apply to me. But I say that the philosophy which was paraded at the last meeting, seems to me to have very grave inconveniencies. It is not necessary, they say, that any one should hasten to experiment the first, and that we should wait till others have made experiments. It is, however, necessary that some one should begin, and hence your censure will always rest on some one. We have been censured for having attempted an operation which had been followed by a failure in the hands of other surgeons. So that it follows, that because an operation does not succeed, it is necessary to reject it

absolutely. There are an infinite number of operations with which surgery honors itself to-day, and which had not very fine beginnings. The ligature of the primitive carotid resulted in death three times before a single case of cure was obtained.

The ligature of the internal illiac has also had its victims, at its beginning. However, other surgeons have performed it, and have succeeded; and to-day no one, I believe, would attempt to condemn these brilliant conquests of surgery.

M. Moreau — But that is very different — it is very different.

M. Velpeau — This is then a bad philosophy to place as a principle of conduct for surgeons, not to be the first to try a procedure or a method, and to forbid all experiments in cases of anterior failures. Another condition imposed by the partisans of this philosophy of which I speak, is that the new method should not be dangerous, and that it should be better than the operations for which it is substituted. It is necessary, still farther, that experiments on animals should have given guarantees of a complete innocuity. These words, plausible in appearance, contain an accusation that the public in general is sufficiently disposed to charge against all surgeons. The surgeons, they say, only ask to carve and cut. Now, nothing is more false than such an accusation. Surgeons cut when in their conscience and mind they see they can not do otherwise; when the disease is such that the ordinary resources of medicine appear to them without power. No surgeon operates for the pleasure of operating.

This question of the treatment of aneurisms by the perchloride of iron, is not a new question—it is but a particular manifestation of a general tendency quite old. This new method is but an application of an idea which has undergone several phases. This idea is to seek a remedy to cure aneurisms, and arrest arterial hemorrhages without ligature. It is, then, a general tendency which proves that the present method does give complete satisfaction to all persons. This desire to do better can not be censured. That which has been sought is to coagulate the blood in the aneurismal pouches, without having recourse to the ligature. This idea has been presented under different forms, and at different epochs. We find it expressed in Montegia, as also observed by Leroy d'Etiolle in his letter to the Academy. M. Leroy d'Etiolle tried several years ago, for this end, injections of alcohol. For myself, it is about twenty-five years, having observed that in cer-

tain vessels some fragments of membranes floating in their interior had determined around them the formation of clots of blood, the idea struck me that we might obtain a complete obliteration of an artery, in introducing, in its capacity, a foreign body to remove it immediately—from this the idea of acupuncture in the treatment of aneurisms. Some trials were made on animals and man—trials which did not inspire me with any great confidence in the efficacy of this remedy. Some thought to complete it, and M. Pravaz added galvanism to the acupuncture. Some experiments were made, but they had no great value—they passed, even it must be said unperceived, which permitted M. Petriquen to give his name to the method of treatment of aneurisms by galvano-puncture, which is naught but my procedure completed by M. Pravaz. To traverse the tumor with one or several needles, and to pass through these needles an electric current, behold in what consists this method which has procured some cures. It is positive we may cure a certain number of aneurisms in this way. It has been a question to know if there is a better and less dangerous operation than that of the ligature.

Now, in twenty cases there were twelve failures, among which there were several cases of death, and only eight cures. We may then positively coagulate the blood in an aneurismal pouche without recourse to the ligature. This is then a result perfectly certain, but this result is not of a nature to make us abandon the ligature, but on the contrary.

Later, M. Pravaz, continuing in this direction, said—but in injecting a medicament, a chemical substance, into an aneurismal cavity, we may coagulate the blood very solidly and immediately. This was something without doubt, but it was not sufficient to make us conclude that it would be successful on man. In general, and particularly on the present question, it is not necessary to hasten to conclude from animals to man. Why so many celebrated kalemostatics, waters of Brocheeri, of Pagleari, etc., etc., after having been announced with so much noise and renown, why have they passed into silence and obscurity? It is that they have at first been tried upon animals with success that many had inferred from the success on animals that they would be also successful on man. Now, nothing is more deceitful than such an analogy. In general, the plasticity of the blood is much more considerable in animals than in man. Certain kinds of animals offer in this respect remarkable results. With them arterial hemorrhages may be arrested easily; the least compression sufficing, or

the least styptic substance to suspend the flow of the blood. The idea of coagulating the blood in the interior of anurismal pouches by means of a chemical substance, was then found, but it was a question to know which was the best coagulant. After several trials, M. Pravaz settled on the perchloride of iron.

Now, I ask you, gentlemen, was there not something to try? Nothing is more easy than such an operation—to introduce a needle into an aneurismal tumor—to inject some drops of liquor into the interior of the pouch — what is more simple or innocent? and yet you do not wish that surgeons, delighted with such a procedure, may seek to employ it with promptness. However simple may be the ligature, it is necessary to confess that this is more simple yet.

Thus analogy, experiments on animals, the well-known good faith and honesty of the man, the author of this invention, all unite to influence and to engage us to make trials on man. There were even some surgeons who had tried before us, and it may be said of those also, that they were criminal, as it has been said of us, to seek to make the first trials of the new methods. More, these attempts were crowned with success. Without doubt, it appears well demonstrated to me that the first cases of cure observed by surgeons were true aneurisms, but the results suffice, at least, to demonstrate the innocuity of the operation.

We have been accused of running after experiments, and of disputing with those who desire to be the first in practising new operations.

But that is accomplished in another way: we do not create the occasions for trying experiments. Not to digress, you know very well that it is not a common thing to meet with aneurisms, even at Paris, in the great hospitals, and that we may be one or two years without meeting with a single case of aneurism. When I made a trial of the new operation, it was not be the first—it was because I had in my service a patient whom I wished to cure, by the aid of a process the most sure and the most innocent. Now, such were the apparent conditions in which the new method presented itself to me. I come to unfold the various phases through which the question pending before the Academy has passed, and now some have wished to have it definitely settled. I avow that I am less pressed than M. Malgaigne, and because the facts upon which he places himself for its condemnation do not appear to me very probable; several of the facts are surrounded by singular

circumstances. The facts in the history of M. Malgaigne, by example, are strange. How? Behold a patient attacked with a false consecutive aneurism; five drops of perchloride of iron were injected into the tumor, and instantly mortification of the forearm supervened. Gangrene does not happen instantly — it is preceded by a special action. Far be it from me to doubt a fact observed by a man like M. Malgaigne, but the circumstances which surround it demand of us to inquire if there was not something else than the action of perchloride of iron which produced such a result, especially since this liquid has been injected, in considerable dose, without producing any such result. M. Leblanc tells you that he has injected thirty drops into the transverse artery of the face of a horse without having any such unhappy result. Perchloride of iron has been regarded as a caustic. It is not so. Expeperience proves that this substance neither cauterizes nor mortifies parts. Beside, we might conclude thus, *a priori*, by the consideration of the elements which enter into the composition of perchloride of iron. Neither one or the other of its elements possess a great energy of action.

In the other facts which have been placed against the new method, inflammation has been observed. But is this result really due to the substance employed? May it not result from the employment of too great a quantity of liquid, or from the manner of operating, or from the disposition of the individual?

This inflammation has been noted in five or six cases; now, if it was demonstrated, which does not appear to me so, that it was the result of the perchloride, it would be a reason to regret the operation; for every time that inflammation seizes the sac it will open. Another difficulty in this question is the clot. It is a question, in my opinion, and must become an object of research. This clot may present itself under two forms—either it is a normal clot—that is to say, formed by pure blood—we call it then a clot *homoemorphe*. *A priori*, we understand that such a clot may be absorbed, taken up by the circulation, and disappear in this way. Such is the clot formed around a fragment of membrane, or the point of a needle in acupuncture, with or without galvanism.

But suppose a chemical substance introduced from without into the blood, and determining the coagulation of this liquid, evidently the blood will be altered transformed — it is no longer a normal clot nor a homogenous mass—it is heteromorphous mass. In the injection of the perchloride made by me,

this clot presented itself under the aspect of a reddish, black mass, very hard; it was velvety, hairy, and quite like a hairy ball (egagropile), which is sometimes found in stomachs of ruminating animals.

There is then, in my opinion, an interesting study to make; it is a question to know if such a clot is susceptible of being absorbed. When it is small it may be dissolved, and carried into the circulation. In a great number of animals it is destroyed and carried into the circulation. But when the clot is voluminous it is not thus affected. Without doubt, we may believe that the homeomorphous clot will be taken up by apsorption; but the heteromorphous clot, is it susceptible of being absorbed?

I know well that it may remain indefinitely in the vessel, without producing inflammation; the economy can habituate itself to it, and can tolerate it, as it tolerates foreign bodies, such as balls, pieces of wood, needles, etc., etc.; but we must not count too much on this result. If it was demonstrated that the clot thus formed is not assimilated, this would be sufficient to reject the new method. There are in science a great many facts which demonstrate that the disappearance of the clot is difficult; such is the experience of J. L. Petit and M. Amussat. J. L. Petit said that the normal clot may remain months and years as a foreign body; that the vessel is well closed above and below the clot, but not at the point of the clot. In Saviart, we read, that an individual attacked with an aneurism at the elbow was cured, but that a hardness remained. At the end of several years, from the influence of an effort, the hardness appeared, and the aneurism showed itself anew.

According, then, to J. L. Petit and several other authors, it appears that the normal clot homeomorphous may persist indefinitely and not be absorbed—then, for a stronger reason, the heteromorphous clot. In conclusion, the perchloride of iron has not given a proper result to make us reject the ligature—far from that; but we must believe that we may not cure an aneurism without the ligature. I like to think, by one means or another, that we will succeed in replacing this last operation. For, in fine, the ligature is always a sad affair, above all, when it is applied on a large artery; and, beside, there are cases where we cannot employ this method, as, for example, in the case of aneurisms existing in vessels, situated near great cavities. It is precisely in these cases that the ligature is powerless, that it would be good to find a substance capable

of curing aneurism by producing coagulation of the clot. This would be a great service to humanity. The ligature is dangerous, whether we operate by the old plan or by the method ——— modern. I have hesitated to name this last method, and I have avoided giving it the name of him who is, according to my opinion, the true inventor, for fear of arousing the susceptibilities of M. Roux.

Notwithstanding the just deference which I have for our very honorable colleague, and notwithstanding the pleasure I experience, he knows it well, in supporting the same opinions, I can not sacrifice my convictions to this sentiment, and must say—method of Anel, because it was Anel who concurred it, and because Anel is a Frenchman. It was him who practised first the ligature above the tumor, without opening the sac. Perhaps it is better to go back to Ambrose Pare to find the origin of this method, for we find it indicated in the works of the illustrious father of French surgery. In fine, it was Anel who conceived and practised it first. It is then to him, and not to Hunter, that belongs the glorg. That which has given reputation and eclat to Hunter, to the injury of Anel, is that the first has saved his patient, while the other has lost his. But this is no reason to deprive Anel of that which belongs to him. As for the rest, there is a very singular thing!—the operation which surgeons practice to-day, and which they are obstinate in calling Hunter's, is not like that of the English surgeons—it is the operation of scarpa, which we all practice.

(*Conclusion next month.*)

Reviews and Notices.

On Rheumatism, Rheumatic Gout, and Sciatica; their Pathology, Symptoms, and Treatment. By Henry William Fuller, M. D. Cantab., Fellow of the Royal College of Physicians, London, Assistant Physician to the St. George's Hospital, &c., &c. New York: Samuel S. and William Wood, 261 Parl street—1854—p. p. 322.

The work bearing the above title is one of much merit, in which the causes, symptoms, and treatment of the various diseases of which it treats, are fully discussed, in a plain, practical, and comprehensive style.

The first chapter is chiefly devoted to an examination of the various theories that have been proposed, in attempts to explain the phenomena of rheumatism, and the authors own views are clearly exhibited in the following extracts:

"Although the poison which gives rise to rheumatism has not hitherto received actual demonstration, yet many facts conduce to a belief in its identity with some natural excretion of the skin.

"In advanced life, when, from want of energy in the system, the skin's action is readily interfered with, pain or stiffness is so constantly produced by a draught of cold air, and subsides so soon after reaction takes place, that we are bound to admit its intimate connection with temporary susdension of cutaneous action.

"Moreover, rheumatism is so common among persons suffering from renal disease, and other complaints, accompanied by a harsh, inactive condition of the skin, that it is impossible not to connect its appearance, under such circumstances, with the cessation of free cutaneous transpiration.

"The means which nature adopts for its relief, and the circumstances which attend their imperfect development, are also suggestive of a relationship between rheumatism and cutaneous secretion. No sooner is a person attacked by the disease than excessive perspiration is set up, as if with the view of getting rid of some pecant matter, and the secretion is most profuse at the very part where the local inflammation is taking place. If the perspiration be checked, or take place irregularly or imperfectly, the disease is protracted, and is rarely got rid of until free cutaneous action has been reestablished. It is probable, therefore, as the skin is the peculiar emunctory of lactic acid, that in it we have discovered the actual materies morbi. Be this as it may, however, the ordinary symptoms of the disease, no less than the history of its rare modifications, are calculated to point to some excretion of the skin as the immediate cause of rheumatic inflammation."

Our author asserts his belief in a specific poison, generated

in, or in some way introduced into the system, which is the proximate or essential cause of rheumatism. In relation to this poison, he uses the following language:

"Thus it would appear that cold, and other external agencies, are but the predisposing and exciting causes of rheumatism, and that the primary proximate, or essential cause of the disease is the presence of morbid matter in the blood, generated in the system as the product of a peculiar form of *mal-assimilation—of vicious metamorphic action.* This poison it is which excites the fever, and produces all the pains and local inflammations which are often found associated in an attack of rheumatism.

If the rheumatic virus be present in small quantity only, it may cause little or more than wadering pains in the limbs, and may scarcely produce perceptible fever, while if it exist in large quantities, it rarely fails to cause febrile disturbance, and to excite inflammation in various parts of the body. In that respect, however, its effects are found to vary in different cases.

Sometimes, though it cause great febrile excitement, its local agency may be confined to the production of external articular inflammation—at others it may fail to produce arthritis, but may give rise to acute inflammation of the heart; and at others, again, carditis may be only one out of several internal inflammations, which it sets up coincidently with extensive articular mischief. Moreover, there appear good grounds for believing that, as in some cases it gives rise to excessive febrile disturbance for days prior to the accession of articular inflammation, and repeatedly without exciting inflammation of the heart, so, in certain instances, it may excite the peculiar train of symptoms whereby rheumatic *fever* is characterized, without producing from first to last the slightest concurrent local inflammation within the joints, or of the heart, or any other organ."

The work is so full of instructive and interesting lessons, that we are reluctant to turn from its pages without giving it a

more thorough review, and transferring to our pages more extensive extracts, but our space will not permit a further indulgence; we will, however, select one paragraph, embracing an outline of the author's rules for the treatment of rheumatism, and then dismiss the subject, hoping that every practitioner of medicine will add to his library "Dr. Fuller's treatise on Rheumatism, Sciatica, and Gout":

"By what means (treatment) then can we best effect our purpose, and to what extent is it prudent to employ these means?

If the materies morbi be indeed an acid, or an acidulous compound; if it be lactic acid, for instance, as there are cogent reasons for believing it to be, then will its neutralization be effected, its irritative property probably diminished, and its diminution promoted by a free exhibition of alkalies and neutral salts; and these objects may be further advanced by the administration of purgatives, sudorifics, and diuritics, to act upon the various excretions. With the view of checking the further formation of the poison, and of restoring that healthy state of assimilation, which, at the outset of the disease, is interrupted or arrested, colchicum, mercurials and alteratives may be given, and as the febrile symptoms begin to subside, may be combined with, or followed by the use of quinia, or of some other tonic, which, at certain stages of the complaint, may be better calculated to improve the function of assimilation. In allaying the general irritability of the system, and more particularly, the irritability of the heart, opium, conium, and nitre, together with the cautious administration of antimony, are remedies of the greatest value; and if vascular action be excessive, and the secretion sluggish, bloodletting may be sometimes beneficially employed.

A Treatise on Acute and Chronic Diseases of the Neck of the Uterus. Illustrated with numerous Plates, Colored and Plain. By CHARLES D. MEIGS, M. D., Professor of Midwifery and the Diseases of Women and Children, in Jefferson Medical College; Member of the American Medical Association; of the American Philosophical Soci-

ety, and one of the Council; Vice President of the Philadelphia College of Physicians; Author of "Obstetrics, the Science and the Art;" "Woman, her Diseases and Remedies;" "A Treatise on Certain of the Diseases of Young Children," etc. etc. *Quæ Prosunt Omnibus.* Philadelphia: Blanchard & Lea. 1854.

Dr. Meigs, as an author, has been so long known to the profession, that it would be useless for us to attempt a criticism of his somewhat peculiar style, or to call the attention of our readers to his excellencies or imperfections in composition; but the work before us is of so much interest, (and, in our opinion, the best of his productions,) that we can not refrain from giving it something more than a passing notice. The mechanical execution of the work is of the highest order, seldom equaled, and perhaps never excelled, in the publication of medical books in the United States. The numerous colored plates that fill nearly half the volume, are strikingly beautiful, life-like, and correct; and our distinguished author is singularly fortunate in the choice of his publishers, who certainly deserve the thanks of the entire Profession for having presented them with so neat a volume.

The author has made one assertion to which we must take exceptions, and perhaps this is the only point at which we would complain in reviewing the entire volume.

In speaking of the custom of some gentlemen devoting their attention especially to the diseases of the uterus, he says: "I regard this tendency to specialization as a thing most injurious to the Profession, *which ought to be a whole in the whole and a whole in every part.* Such specialization of the office of the physician is very far from tending to elevate the whole body in its usefulness to the public, however it may serve to exalt the interests of a few individuals, and it must be confessed that any specialization as to this sort of clinical duties, is both highly inconvenient to the people and disparaging to the Profession at large, while it is wholly uncalled for by the nature of the cases."

The domain of medicine is so extended, and diseases so nu-

merous and varied in form, that the promiscuous practitioner has not the time, inclination, or even the ability, to investigate closely every obscure form that disease assumes. The science of medicine is not indebted to the general practitioner for the rapid progress it has made in late years, from darkness and obscurity into the light of day, but it is to those great minds who have turned their attention to some particular branch, and have devoted their lives and their prospects of future distinction to its study and investigation.

If it had not been for this "specialization," that our author so much condemns, what would now be the condition of the healing art? Harvy, by "specialization," discovered the circulation. Jenner, by "specialization," robbed small-pox of its terrors. Hunter, by "specialization," gave us more knowledge of syphilis than a host of general practitioners could have done in a century. Stromeyer, by "specialization," has taught us how to remove the most frightful deformities. Laennec and Louis, by "specialization," have laid bare the organs of the chest, so that their diseases are readily detected. And Bennett, Simpson, and *Meigs*, by "specialization," have revealed those mysterious morbid conditions of the uterus that have for ages defied the skill of the general practitioner, and have been a hopeless curse to the sex.

Dropping these few remarks, we will pass on to some of the more essential parts of the work, and first of leucorrhœa. The discharge in this malady, our author thinks, is seldom a product of the vagina, and when wholly from that part of the system, it does very little damage to the constitution. On this subject he writes as follows: "While our own observation convinces us that profuse vaginal secretion is rarely met with in practice, we are equally convinced that some of the patients are rendered too moist by excessive activity of Duverney's glands, and farther, that the most mischievous of leucorrhœal secretions is that which comes from the canal of the cervix of the womb.

"The muciparous glands of the vagina furnish either a thin

watery mucus, or else one of a creamy consistence, which in other instances appears to be butyraceous, or concrete."

The excretion from the follicles and glands of the canal of the neck, however, is always gluey or albuminous, and resembles fresh white of eggs; and, when the patient, in describing the disorder, informs us that she discovers a slimy transparent mucus, and especially if it appears at intervals of once a day, or oftener, we may take it for granted that she labors under inflammation of the neck of the womb. There is no apparatus in the vagina itself for the secretion of this albumen; but the abundant follicles of the canal of the cervix are devoted solely to such production—when the cervix is chronically inflamed, that production is much increased; to that degree, indeed, as to impart a character of sliminess to the discharge, that makes it resemble *albumen ovi*.

It very often happens to observe this transparent viscid mucus to be wholly unaccompanied by any vaginal excretion; the substance coming away from the os uteri, and escaping upon the napkins without the least admixture. In using the metroscope, the same albuminous matter may be seen oozing forth from the orifice of the womb only, and so tenacious that it can not be wiped away with the sponge.

In cases of mucus discharges from the vagina, mild vegetable astringent injections will generally give relief; if this treatment should not succeed, a dilute solution of nit. arg. will seldom fail to cure, but "a vaginal injection for inflammation of the canal of the neck, is, simply, ridiculous. The albuminous leucorrhœa is a sign of inflammation of the cervix, in which is included the canal, with its copious muciparous apparatus. It is as much a surgical disorder as an ulcer of the leg, or an anthrax, or conjunctivitis. When the surgical disorder is cured the sign disappears. Hence we desire to express the opinion, that such leucorrhœas are to be held as acute or chronic inflammations of the canal of the neck, and ought to be treated accordingly."

This subject is one that all practitioners must feel a deep interest in, for there are few who have not, at some time, if they do not now, feel annoyed at a knowledge of their want of skill in the treatment of leucorrhœa.

We have selected the above extracts in the hope that a de

sire may be excited in our numerous readers to peruse the entire work, and thus ensure for it a wide circulation and an energetic demand.

For sale by Moore & Anderson.

Progress of Medicine.

IRELAND.

Recovery after a large Dose of Hydrocyanic Acid. By W. M. Burman, M. R. C. S. E., Wath-upon-Dearne.—The occurrence I am about to relate took place on August 6, 1853, at six, P. M.; but before going into detail, I must premise that my father and myself are practising together and use the same surgery. We keep our Scheele's hydrocyanic acid for dispensing, much diluted—namely, in the proportion of one minim of the acid to a fluid drachm of water; this is kept in a four-ounce purple glass bottle. It so happened that a short time previously, we had received a fresh supply of Scheele's acid in a bottle precisely similar to the one in which we keep our very dilute acid. This strong acid was put into a cupboard under lock and key, but on the day in question had been taken out to replenish the dispensing bottle, and then left on the surgery counter. Soon afterwards my father returned from his afternoon ride, and being troubled with slight dyspepsia, went into the surgery, as was his habit, and mixed himself a draught containing a little aromatic spirit of ammonia and bicarbonate of soda in two ounces of water, adding to it a fluid drachm of the *very dilute* acid, *as he thought*, but he took it out of the bottle of Scheele's acid standing on the counter. He drank this off, noticing nothing peculiar in the taste. In a few seconds afterwards, upon looking at the bottle, he thought the label appeared cleaner than usual, and the idea flashed upon his mind that perhaps he had taken the strong acid. A glance at the proper dispensing bottle, which was in its place, confirmed this. He directly poured half an ounce of aromatic spirit of ammonia into the measure, and drank it, *he believes*, without water, but he may have added some. He then walked into the house to

the bottom of the stairs, (a distance of about sixteen yards), and called me; I came down stairs directly, and went into the surgery, where I found him standing at the counter with a glass measure in his hand. He said, "I have taken a drachm of that acid; what can be done?" adding, "I have since taken half an ounce of aromatic spirit of ammonia." There was nothing in his appearance to attract my attention, but he spoke hurriedly, expiring deeply at the same time; he then sat down on a chair. I immediately put some crystals of sulphate of iron into a measure, adding one drachm of the tincture of the sesquichloride of iron, and one ounce of water, stirring the mixture vigorously, to get as many of the crystals dissolved as possible in the time, and gave it to him to drink, which he did. I had no liquor potassium at hand, or I should have added some to the mixture before giving it to him, to precipitate the mixed oxides of iron; as it was, I was obliged to trust to the ammonia he had taken. My object in giving him this was to endeavor to get the mixed oxides of iron in contact with, at least, part of the acid in the stomach, and thus to convert it into prussian blue, as suggested by the Messrs. Smith, of Edinburgh. Directly after drinking this, he began to breathe deeply, passed his hand over his forehead and top of his head, and said, "Oh, I feel very queer; had I not better go out of doors?" I said, "Yes," and with my assistance he staggered out, and dropped senseless in a sitting posture on a stone step at the surgery door. This was just about *two minutes* after taking the poison, as ascertained afterward by going through the same routine. From this time he recollects nothing till twenty minutes afterwards. His breathing was now slow and very deep; his eyes turned up completely under the upper lid; pulse moderate in volume, but very slow and intermitting. I hastily took off his neckerchief, fetched a large pitcher of water, and poured it over the back of his head and down his back. This produced no apparent effect at the instant, but a few seconds after, he vomited a mouthful of glairy mucus. (This was nearly four minutes from the time of taking the poison.) I sent for another pitcher of water, and during the interval again examined the pulse, and found it slower than before, feeble, and threatening to stop altogether; respiration very slow and deep, irregular, with blowing expiration and puffing of the cheeks; a little frothy mucus ran from his mouth. At this period the relaxation of the whole body was as great as that of a person recently dead. I now gave him

another dose of the iron mixture, as before, adding a little aromatic spirit of ammonia. By speaking loudly, shaking him, and pouring it into his mouth, I got him to swallow the whole of it. Meantime, the servant returned with another pitcher of water (about four pints), which I instantly poured down his back (five minutes after taking the poison). This appeared to arouse him a little, and directly afterward he vomited about two ounces of a deep bluish-green liquid; this I was glad to see, for I hoped that partial decomposition of the acid had taken place. The pulse and respiration were slightly quicker, and more regular; pupils still quite invisible; conjunctiva injected; face livid. After an inspiration more than usually deep, he opened his mouth wide, and stretched out his arms; a spasmodic flutter passed over the face, and then over all the body, and I expected fully to hear a scream, as I had generally noticed in animals, or that he was about to have a convulsion; but just as it began to pass off, he vomited twice, and seemed relieved by it. The vomited matter was still bluish-green, and this time mixed with pieces of half-digested meat, which had been taken at dinner, four hours previously.

I next gave him two drachms of aromatic spirit of ammonia in one ounce of water, and with some difficulty got him to swallow it. Having again filled the pitcher, I poured the water down his back as before, and directly afterwards he vomited two or three times—seven minutes from the time of taking the poison. The respiration and pulse were now very much better, the latter being quicker, and pretty regular. Soon after vomiting, I noticed a little movement of the hands, apparently voluntary. I now hoped the immediate danger was passed—eight minutes—so I watched the symptoms for a minute or two, and then the pulse beginning to falter a little, I gave him two drachms of aromatic spirit of ammonia in one ounce of water, which, with a little difficulty, he swallowed. I tried to get him to speak, or to give any evidence that he understood what was said to him, but failed to elicit any sign of consciousness from him; still I considered him tolerably safe, for the pulse was pretty strong and regular, and the respiration, although deep, was quite regular; the countenance was also now regaining its natural appearance, and that extreme flaccidity of the limbs was nearly gone. After about five minutes more had elapsed—fifteen minutes—he opened his eyes and gave utterance to an ejaculation, and evidently understood, to some extent, what was said to him.

Soon afterwards he complained of his trousers being wet, and this is the first circumstance he remembers after leaving the surgery more than twenty minutes before. We presentl got him into the house and gave him a little hot brandy and water. I was now anxious to get him to bed as quick as possible, judging that rest in the recumbent position would most conduce to his recovery. After sitting ten or fifteen minutes, he was able, with great difficulty and with our assistance, to walk up stairs, but vomited several times during the transit. We got him into bed, and soon afterwards turning to me, he said, "You should have used the cold affusion;" and seemed quite surprised when I told him that I had done so pretty freely. During the evening he took a simple effervescent draught now and then, and presently he dropped asleep. He passed a good night, and next morning complained of pain across the loins, but was otherwise pretty well, except a feeling of general weakness. I ought to have mentioned that my father is about sixty years old, and of a strong constitution.

A day or two afterward I analyzed the acid. I measured one drachm in the same two ounce measure that my father used, and put it into a minim measure; it filled up to seventy minims. I diluted this, and then added a solution of nitrate of silver till no more precipitate was produced. I repeatedly washed this precipitate, and dried it carefully for a long time; but to make sure that it contained no more water, I put it into a warm oven for an hour, during which time it lost nearly one-fifth of a grain. It now weighed exactly twelve grains, which would be equal to 2.4 grains of anhydrous hydrocyanic acid, *the quantity my father took.* As 100 grains of the acid filled up 105 minims in the same small measure, this would give 3.3 as the per centage of the anhydrous acid in the Scheele's acid used.

I have been thus minute, perhaps unnecessarily so, in the detail of this case, because it presents many points of unusual interest; some of these it may be well to recapitulate very briefly: 1stly, this is the largest quantity recorded (so far as I know), after taking which recovery ensued; 2ndly, the quantity of acid taken was *measured*, being certainly no less than one drachm of Scheele's strength (at 3.3 per cent.) and being equal to 2.4 grains of real acid; 3rdly, the time at which insensibility supervened after taking the poison is accurately known—namely, *two minutes;* lastly, the good effects of the cold affusion, and the probable decomposition of part of the poison by the mixed oxides of iron.

The Recent Poisoning by Darnel at Roscrea.—Surgeon John A. Powell deposed that on Christmas Day he was called out of church to see people; he visited several families, and found them laboring under symptoms produced from eating "ryely" bread. He then enumerated the names of many families whom he had attended (members of which were subsequently examined;) he had examined bread found in some of the houses, and found it contained "ryely."

Persons were produced to prove that they had purchased flour at the establishment of Messrs. Atkinson, in Roscrea, on the Thursday, Friday, and Saturday prior to Christmas Day, which flour they had made into bread, and having partaken of it, they and their families became unwell. As the evidence of these parties were almost alike, the testimony of the following is sufficient to be given in detail:

Sarah Kennedy deposed, that having purchased some thirds flour at Messrs. Atkinson's, she made it into bread on Christmas morning, and that after eating her breakfast she thought the cake rather queer; she felt like one who had been after drinking a barrel of whisky, and she trembled like the leaves on the trees. On cross-examination she stated that she had mixed nothing with the flour but a small quantity of soda and buttermilk; she got the soda in the same shop as the flour; she felt sick while eating the flour.

Esther O'Brien, a very intelligent girl, proved that on Christmas Day, after eating her breakfast, she went to the Sunday School, and while there found her head getting light, and the sight leaving her eyes; she staggered home as well as she could; on arriving there she found her three brothers lying on the flour very bad; she felt as if her stomach was boiling; she imagined that she and her brothers had been poisoned by eating the bad bread made from the flour which she had purchased at the establishment of Messrs. Atkinson, and she told her mother to run for an emetic; her mother left the house for that purpose, but she (the witness) finding herself getting worse went to hasten her mother, but before she had gone many yards she became so faint that she was obliged to seek refuge in the nearest house, where her stomach became sick, and afterwards she got better; she had eaten but a small quantity of the bread.

Mary Malone proved that not only herself and her husband, but also a pig, who had eaten a small quantity, became sick.

Robert and Richard Dwyer, porters in Messrs. Atkinson's

shop, proved that they had sold thirds flour to the parties who had been examined, and that they had received the flour so sold from the carters of the defendant (Mr. Lyster,) on the Wednesday previous to Christmas Day.

Mr. Atkinson, after being duly cautioned by the justices not to say anything which might criminate himself, was sworn, and examined by Mr. McEgan. He deposed that the flour which had produced so much sickness, he had purchased at Mr. Lyster's mills, at Mill Park, on Tuesday, the 20th of December, 1853, and which flour was delivered at his establishment in Roscrea on the following day; the flour was guaranteed to him as good, and relying on that engagement he had sold it as such and in the same state as it was "started" from Mr. Lyster's into his bins in his shop. After the circumstance, he (Mr. Atkinson) accompanied by one of his bakers, went to Derrinsalla mills, where Mr. Lyster resides; he saw him, and told him of the consequences, and of the loss which he had sustained in his business. Mr. Lyster expressed his sorrow, and said it had occurred without his consent, and that it was caused through the ignorance of his man of business, who mixed ryely with the wheat sold to him as flour. Mr. Lyster also said that it was rank folly for his clerk to offer for sale such flour at Mill Park, for if the clerk had only sent it to Derrinsalla, he (Mr. Lyster) would have netted 2s. a sack on it more than he (Mr. Atkinson) had paid for it. Mr. Lyster then further stated that he would take the whole responsibility of it upon himself, and that he would write to Mr. Hetherington, his clerk, to appear before the magistrates, and to state that the flour was sold through ignorance, not knowing the pernicious effect of the ryely. This witness underwent a very searching cross-examination, with the view of showing that he had flour of the same quality on sale, which might be the article which produced the sickness; but he positively swore that on Thursday, the 22d of December, having heard complaints of the flour, he had what was purchased from another miller in the neighborhood put into sacks, and from that up to Saturday evening suffered only what he had purchased from Mr. Lyster to be sold; it was fine, and snowy white; received a letter on Saturday, the 24th of December, and made sales after the receipt of that letter; after the complaints were made, a clerk of Mr. Lyster's was in the shop, and on being asked was anything wrong with the flour, he said not, that it was made from pure wheat, except what ryely their machinery did not take out. Mr. Atkinson not having the letter

referred to in his cross-examination, a messenger was sent for it, and on his return it was read. It was written by the clerk who had sold the flour, and it was to the effect that the writer regretted to hear that the thirds flour he had sent was not liked. He could not account for it, as it was made from nothing but pure wheat, unless what small portions of ryely the machinery could not take out.

The case for the prosecution then closed.

Mr. Jacob addressed their worships on behalf of the defendant. It was to be regretted that such an occurrence should have taken place, but nothing serious had eventuated from it. He should admit that the seeds of darnel grass was among the flour; it was a well known fact that it grew among their wheat. He then quoted "Taylor on Poisons," to show that there never was an instance where the use of the ryely had proved fatal to man. His client had made no false representation. It was sold as thirds flour, and from which the machinery did not separate the small ryely. There was no proof to show that it had been mixed, and the mixing was the ingredient of that section: he contended that there was no evidence that the flour was mixed, and under all the circumstances he called upon the court to dismiss the complaint.

There were no witnesses produced for the defense.

After a few minutes' consultation,

Mr. Prittie said that they considered the case fully proved, and consequently felt bound to convict the defendant. From the great quantity of ryely in the flour it was their opinion that it was not accidental, while they would admit that a certain small portion might be in it. Under the circumstances, they felt it to be their duty to impose the fullest penalty awarded by the statute for such offence—namely, a fine of £2 and costs.

Mr. Jacob intimated an appeal.

Mr. Atkinson admitted to having sold the adulterated flour, but denied that he knew it was adulterated.

The Magistrates, under these circumstances, only imposed a nominal penalty of 1s. with costs of court.

Darnel.—This is the Lolium temulentum of Linnæus. The name is very expressive of the nature of this poisonous weed, for it causes, among its other consequences, intoxication and delirium. Lolinm temulentum means literally "drunken narnel." It is often found growing among autumn sowed corn. Ovid informs us that it is injurious to the eyes,

a fact established by the dimness of vision occasioned by it to the recent poor sufferers at Roscrea. Virgil appropriately calls it "infelix lolium," *i. e.*, unlucky darnel, in the following passage in 1st Georgic:

"Interque nitentia culta
Infelix lolium et steriles dominantur avenæ."

Thus rendered by Dryden:

"Sad darnel domineers,
And shoots its head above the shining ears."

The Irish name for this noxious herb is *braoithilean*, as if from *braoi*, the eyebrows, and *dilean*, a flood or deluge, owing to the dizziness, suffusion of the eyes, and injury to vision, to which its being taken into the stomach gives rise.

Mr. David Moore, of the Royal Dublin Society, in his excellent practical work on "British Grasses," says: "It is the only one of our British Grasses which is deleterious, and therefore rather to be avoided than encouraged. Nothing marks out bad husbandry more clearly than its prevalence, as it inclines most to grow upon poor worn-out soils, especially where oats have been frequently repeated as a crop. In such places it sometimes forms a large portion of the produce, and on the grain being made into meal, the darnel mixes with it, affecting the head and stomach of those who partake of it, as we have oftener than once experienced."

UNITED STATES.

On the Venom of Serpents. By J. Gilmam, A. M., M. D., LLD.—There is much in the history and habits of the reptile tribes, however repulsive they may be in appearance, that is very interesting. During a sojourn of two or three months in the interior of Arkansas, which appears to me to be the paradise of reptiles, I paid some attention to that branch of natural history called ophiology: I found four distinct varieties of rattle-snakes (*Crotalus*) of which the Crotalus Horridus and Crotalus Kirtlandii are by far the most numerous. The former is the largest serpent in North America. The family of moccasin snakes (Colluber) is also quite numerous, there being not less than ten varieties, most of which are quite as venomous as the rattle-snake. By dissecting great numbers of different species I learned that the anatomical structure of the poisoning apparatus is similar in all the different varieties of venomous serpents. It consists of a strong frame-work of bone, with its appropriate muscles in

the upper part of the head, resembling and being in fact a pair of jaws, but externally to the jaws proper, and much stronger. To these is attached by a ginglymoid articulation, one or more movable fangs on each side, just at the verge of the mouth, capable of being erected at pleasure. These fangs are very hard and sharp, and crooked, like the claws of a cat, and hooking backward, with a hollow from the base to near the point. I have occasionally seen a thin slit of bone divide this hollow, making two. At their base is found a small sac, containing two or three drops of venom which resembles thin honey. The sac is so connected with the cavity of the fang during its erection, that a slight upward pressure forces the venom into the fang at its base, and it makes its exit at a small slit or opening near the point, with considerable force; thus it is carried to the bottom of any wound made by the fang.

Unless the fangs are erected for battle, they lie concealed in the upper part of the mouth, sunk between the external and internal jaw bones, somewhat like a pen-knife blade shut up in its handle, where they are covered by a fold of membrane which encloses them like a sheath; this is the *vagina dentis*. There can be no doubt but these fangs are frequently broken off or shed, as the head grows broader, to make room for new ones nearer the verge of the mouth; for, within the vagina dentis of a very large crotalus horridus, I found no less than five fangs on each side—in all stages of formation—the smallest in a half pulpy or cartilaginous state, the next something harder, the third still more perfect, and so on to the main, well set, perfect fang. Each of these teeth had a well defined cavity like the main one. Three fangs on each side were frequently found in copper-heads, vipers and others.

The process of robbing serpents of their venom is easily accomplished by the aid of chloroform, a few drops of which stupifies them. If, while they are under this influence, they are carefully seized by the neck, and the vagina dentis held out of the way by an assistant, with a pair of forceps, and the fang be erected and gently pressed upward, the venom will be seen issuing from the fang and dropping from its point. It may then be absorbed by a bit of sponge, or caught in a vial, or on the point of a lancet. After robbing several serpents in this manner, they were found after two days to be as highly charged as ever with venom of equal intensity with that first taken.

During the process of robbing several species of serpents,

I inoculated several small but vigorous and perfectly healthy vegetables, with the point of a lancet well charged with venom. The next day they were withered and dead, looking as though they had been scathed with lightning.

In attempting to preserve a few drops of venom for future experiments, in a small vial with two or three parts of alcohol, it was found in a short time to have lost its venomous properties. But after mixing the venom with aqua ammonia, or spirits of turpentine, or oil of peppermint, or of cinnamon, or of cloves, or with nitric or sulphuric acid, it still seemed to act with undiminished energy. It is best preserved, however, for future use, by trituration with refined sugar, or sugar of milk.

A very fine large cotton-mouth snake, being captured by putting a shoe-string around him, became excessively ferocious, striking at even the crack of a small riding-whip. Finding himself a prisoner, without any hope of escape, he turned his deadly weapons on his own body, striking repeatedly his well charged fangs deeply into his own flesh. Notwithstanding this, he was put into a small basket and carried forward. In one hour after, he was found dead, and no amount of irritation could excite the least indication of life. Four hours after, while removing the skin for preservation, the blood oozed slowly from the vessels in a dissolved state. No violence was done to his snakeship, except what he did to himself.

Another moccasin, shot by a pistol about two inches back of the head, and skinned immediately, gave decided evidence of vitality four hours after being flayed, by wreathing the body whenever it was irritated by a scalpel.

A large rattle-snake beheaded instantly with a hoe, would an hour and a half after, strike at anything that pinched its tail. Of several persons who were testing their firmness of nerve, by trying to hold the hand steady while the serpent struck at it, not one could be found whose hand would not recoil in spite of his resolution, and one man, a great bully by-the-by, was struck on the naked throat with considerable violence by the headless trunk of the serpent, and staggered back, fainted, and fell from terror.

Mr. Stewart, of Miss., tells me he witnessed a similar scene. An old hunter shot a rattle-snake's head off, and after reloading his gun and standing sometime, he stooped to pull off the rattles, and the bloody but headless trunk of the snake struck him in the temple, and he fainted and fell down with terror.

Seven venomous serpents belonging to five different species were made to fraternize and dwell amicably in one den. A beautiful pair of long bodied speckled snakes, known as king-snakes, and found to be fangless, and consequently without venom, were duly installed as members of the family. Some uneasiness was perceivable among the older members, but no attempt was made to destroy the intruders, though they might have been killed instanter. The next morning four of the venomous serpents were found to have been destroyed by the king-snakes, and one was still within their coil, and the two remaining ones would make no effort at self-defense. A large rattle-snake seemed stupid and indifferent to his fate. He could not be made to threaten or give warning even with his rattles. The smallest king-snake was afterward inoculated with the poison of one of the serpents he had destroyed, and died immediately after—thus evincing that they must have exercised some power beside physical force to overcome their fellow-creatures.

In short, the results of a great number of experiments performed with the venom of a great variety of serpents, seem to lead to the following conclusions:

1st. That the venom of all serpents acts as a poison in a similar manner.

2d. That the venom of some varieties is far more active than that of others.

3d. That a variety of the colluber, known as the cotton-mouth, is the most venomous serpent in Arkansas.

4th. That the venom of serpents destroys all forms of organized life, vegetable as well as animal.

5th. That alcohol, if brought in contact with the venom is, to a certain extent, an antidote.

6th. That serpents do possess the power of fascinating small animals, and that this power is incidental with mesmerism.

7th. That the blood of small animals, destroyed by the venom of serpents, bears a close resemblance to that of animals destroyed by lightning or hydrocyanic acid; it loses its power of coagulation and can not be kept long from putrefaction.

Hints on the Causes of Blindness. By Wm. Chapin, of the Pennsylvania Institution for the Instruction of the Blind. —Mr. Editor: I desire to communicate, through your useful Journal, some facts illustrating the hereditary tendencies

or predisposition to blindness. The facts will apply with equal force to deafness, insanity and other congenital infirmities.

The popular belief is, that blindness and deafness, when congenital, may often be traced to blind or deaf parents, or to some previous generations. Hereditary insanity is more evident than either of the other afflictions. But it will be found, on examination, that transmission, from like infirmities, is comparatively very rare, in the cases of the deaf and the blind.

In respect to the last class, particularly, the writer has had some opportunities of observation. From the statistics furnished by the Institutions of the Blind in this country and Europe, I am able to state that the prolific cause of blindness, inherited from birth, is the *intermarriage of relatives*, particularly of *first cousins*.

The tendency of such marriages to produce an inferior or diseased offspring, is a physiological fact well established. Idiocy and insanity in the same family, with blindness, is not an uncommon occurrence, where the parents were first cousins. The writer knows one family of *seven* blind children; another of three blind and one idiot child; several of two blind each, and an indefinite number with one blind child in each, the parents being cousins. Two brothers married two sisters, who were cousins—each family had one blind daughter. The facts are so usual, that whenever more than one deaf, blind, or idiot child, is found in a family, it may fairly, in most cases, be referred to the above cause.

The writer, a few years since, examined the "*Hospital Royale des Quinze-vintgz*," in Paris, with reference partly to this subject. This is the celebrated hospital for "*fifteen score*," or three hundred blind persons, founded by Louis IX, in 1260.

These blind persons are encouraged to marry with each other, but generally with persons outside. The community numbers 870 in all, in 245 distinct families, of whom 113 are children born in the house. All these children have one or two parents blind. If blindness, therefore, tends to transmit blindness, we should certainly find this hospital one of the most favorable places to prove it. But on the contrary and I confess my surprise, *not a blind child had ever b e born in the house.*

It would be incorrect, however, to infer from so striking a a fact, that blindness is never transmitted by blind parents

I know a young lady whose progenitors, for five generations, have been blind, at least one of the parents, in succession.

Sometimes nature appears to be eccentric in her operations. A lady in Ohio had three blind children. Neither the parents nor grand-parents of the children were blind. But the lady's *brother* had two blind children, and she had also two *uncles* blind. I have known of some twenty marriages in this country, in which one party was blind and ssveral where both were blind; but the offspring in every case have good sight.

What then are the chief causes of blindness? In England and Ireland, *Small Pox* has produced more blindness than any other known cause. In the Liverpool Asylum, from its foundation, there have been 229 cases, or one-fifth of the whole number, from Small Pox. Of 1,296 blind persons, from two asylumns, the following are noted as the principal causes:

Blind from birth, - - - - - -	123
Small Pox, - - - - - - -	258
Inflammation, - - - - - - -	429
Cataract, - - - - - - -	139
Accidents, - - - - - - -	135
All oter causes, . - - - -	211

Inflammation, or Opthalma, is a rather indefinite term in such reports, covering a multitude of cases attended with inflammation, where the precise cause is obscure and unknown.

There are, for example, many cases of children born with good sight, but with a constant tendency or predisposition to blindness, in whom the slightest accident or exposure to cold, produces inflammation and loss of sight. A slight injury develops the hidden weakness of the organ. There were two blind children, a brother and sister, in one of our institutions, who lost each of their eyes, though apparently sound, by four separate accidents—some of them so slight, that a perfectly healthy eye would scarcely have suffered.

In this country, Small Pox has caused comparatively very little blindness. According to the Register General's Report, of Great Britain, between four and five thousand persons were blinded by it, in England and Wales alone.

Of 118 blind children received in the Ohio Institution up to 1846, only one had been blinded by Small Pox. And of 237 children received into the Pennsylvania Institution, at Philadelphia, only 10 became blind from Small Pox.

The statistics of that Institution, where a careful register

is kept, show the following results, which are important, as presenting a fair general average of the causes of blindness in the country at large, viz:

Opthalmia,	74
Amaurosis,	22
Cataract,	20
Congenital,	18
Small Pox,	10
Scarlet Fever,	6
Measles,	6
Accidents,	43
Other causes,	28
Total,	237

Of this whole number, 85 were born blind, or lost their sight the first year; over one and under five years; 31 between five and ten; 36 between ten and twenty, and 26 over twenty years of age.

These facts show the large number who are born blind, or become so in early infancy. More than one-third of the whole were blind under one year old, and nearly one-half before the third year.

Of the 10,000 blind persons in the United States, we may assume that 7,000 are under thirty-five years of age. Of this number, about 3,400 were blind at birth or before the third year.

All the above facts only illustrate, perhaps, the general law of hereditary tendencies, not of disease transmitting its like, for exceptions in the above cases appear to be the rule; but that certain constitutional conditions in parents, produce peculiar defects in their offspring. Such being nature's law and her severe penalties, it is very important that a full knowledge of it should be spread, and the unhappy results, as far as possible, avoided. W. C.

Philadelphia, December 10, 1853.

Alcoholic Liquors in the Practice of Medicine. By N. Gilman, M. D.—As no one inclines to answer the questions which I proposed in my first article, I will give my own crude notions upon the subject, hoping, at least, to elicit truth from others.

The first question—"Are alcoholic liquors indispensably necessary in the practice of medicine?" I answer in the negati[illegible]

Alcohol, by the physician, is used for three specific purposes.

First, as a stimulant in cases of debility.

Second, as a solvent for medicines that are insoluble in any other menstruum.

Third, to preserve vegetable compounds from decomposition.

As a *stimulant*, alcohol possesses great power, but its usefulness is not proportionate. Such is its peculiar nature, that it is very difficult if not impossible to adapt it to the wants of the system in a debilitated state. There is no doubt that a comet possesses wonderful propelling power; still it might be very difficult to make a practical and safe application of that power on a railroad. Take a patient reduced low by fever, for instance. Apply sound physiological and pathalogical principles, and ascertain the wants of the system; then look at the properties of alcohol, and see if it is capable of supplying them.

When reduced low by fever, the vital powers are nearly exhausted by the previous excitement and deficient nutrition. Is stimulation indicated? Does the patient need to have another excitement produced in the system, which will make a still greater draft on his latent nervous energies? Does he not rather require perfect rest and suitable nourishment? Undoubtedly, for nothing else can impart *real, permanent* strength, and restore the wasted powers of life. This is so plain that it can be understood by any reflecting person, without any knowledge of physiology. When the mass of the people, who have no medical education, shall get their eyes open and look into this subject for themselves, some of our learned craft will be ashamed of their own stupidity.

We will next look at alcohol and learn its nature—then determine whether it imparts any strength to the body. Alcohol, in all its forms, is a mere *stimlant;* or rather, with more propriety, it might be called an *irritant poison*, possessing no tonic or strengthening properties whatever. The digestive organs have no power to change it, or extract from it any nourishing principle. Without undergoing any change, except what is produced by dilution, it is taken up by the absorbents, carried into the blood, and goes the rounds of the circulation. Thus, every organ and tissue in the body has an irritating poison brought into actual contact with it. This must be expelled without delay, or their vitality is endangered. An additional task is thus imposed on the vital or-

gans. The apparent increase of strength is nothing more than the latent nervous energies, aroused for the sole purpose of driving out this enemy from the body. When this task is over, there is still greater exhaustion. Nothing has been gained by the operation, but a positive loss has been sustained.

There are two other ways in which the presence of alcohol in the blood disturbs the vital functions. First, it interferes with the nutritive operations. Dr. Carpenter says, "Among the most important of the chemical changes which alcohol has the power of effecting, is the coagulation of soluble albumen; and although it will rarely, if ever, be introduced into the mass of the blood, or into the serous fluids of the tissues, by any ordinary alcoholic potations, in a sufficiently concentrated state to effect this, yet we should anticipate that its presence, even in a very dilute form, must affect the chemical relations of albumen, and can scarcely do otherwise than retard that peculiar transformation by which it is converted into the more *vitalized* substance, fibrine." That such is actually the case, will be rendered probable by the considerations to be presently adduced.

"No considerable changes of a chemical nature can take place in any of the animal tissues without disordering their *vital* properties also; and we have now to inquire into the mode in which these properties are affected by the contact with alcoholic liquids. In the first place it would appear that the solidifiability of the fibrine, which is its special vital endowment, is impaired by the introduction of alcohol into the fluid that contains it; for when an animal is killed by the injection of blood vessels, the blood often remains fluid after death, or coagulates but imperfectly. Now, as it is probable that nearly all the organized tissues are developed at the expense of fibrine, it is obvious that anything which impairs its organizability must have an injurious influence upon the general nutritive operations; and we shall hereafter find confirmation of this inference in that peculiar condition of the system which results from excessive habitual indulgence in alcoholic potations, and of which the imperfect elaboration of fibrine is one of the special characteristics."

This quotation needs no comment. It is quite obvious that any medicine, which so decidedly interrupts the restorative process, cannot impart strength to the exhausted body.

Secondly. The presence of alcohol in the blood disturbs the vital functions, by preventing the decarbonization of the blood

through the agency of respiration. And here Dr. Carpenter shall speak for us again. "The alcoholic odor of the *breath* is a sufficient indication that alcoholic vapor is exhaled from the lungs in the act of respiration; but the quantity of this is probably small in comparison with that which is carried off in another way, viz: by the combustive process which takes place in the blood at the expense of the oxygen it contains, and which converts the alcohol into carbonic acid and water; both of which are set free by exhalation from the lungs. The readiness with which alcohol is thus oxydized, in fact, is probably one cause of its influence in giving a venous aspect to arterial blood; since it will withdraw the oxygen from other substances which are waiting to be eliminated by the combustive process, and the accumulation of which will deteriorate the character of the fluid."

The injury arising from this source is proportionate to the quantity used. In health, no appreciable effect might be produced by the small quantities administered in sickness; yet we may safely infer that when the system is so much prostrated that the lungs can with great difficulty so far purify the blood as to enable it to stimulate the heart and brain to action, a very minute quantity of alcohol, by imposing an additional task, may cause a fatal result. The physician who proscribes alcohol under such circumstances, thwarts his own purpose. It has long since been known that it never imparts any *new* strength, but only makes a draft on what one already possesses. As in health, so in sickness, it is never capable of affording any other strength than is imparted by the lash to the jaded horse.

This, being the case, it would seem to be self-evident that it can, in no case of prostration from fevers or any other debilitating causes, facilitate recovery. On the contrary it must hasten death, when the nervous energies are too much exhausted to allow of the recovery without stimulation, and actually *cause* a fatal termination, when the vital powers are barely sufficient to keep up the action of the art till they can be invigorated by rest and nutrition. It is only in cases where the patient has more strength than he actually *needs*, that it would be safe to stimulate with alcohol. The physician who prescribes port wine or any other alcoholic stimulant in such cases, does not understand the difference between stimulation and nutrition; consequently, he fails to prescribe scientifically. A patient thus reduced may be compared to a lamp with the oil so nearly exhausted as to present but a

slight flickering blaze. The gentlest motion or breath of air will extinguish it. It will burn for hours if not disturbed —yet if you pick up the wick, a momentary flame is produced, and then entirely disappears. If you had carefully filled the lamp with oil, the flame would have been *permanently revived.*

So much for theory; now for practice. A person is sick of fever, a crisis takes place at the proper time, the patient is convalescent, and the doctor recommends a little wine to strengthen him. Under its use the patient feels better, an appetite is excited prematurely, and indulged too freely. He grows worse, and is soon apprised by his physician that "he has been imprudent in eating and caused a relapse of the fever." Another has typhoid fever, is very feeble—wine is resorted to for the purpose of keeping up the strength. The vital powers are rallied, and strong hopes are entertained of his recovery. But the next day, perhaps, an inflammation is developed in the brain, lungs, or abdominal viscera, and the symptoms become alarming. The doctor is summoned, and assures the friends that "another fever has set in, and he fears it will go hard with the patient."

It may be laid down as a rule, that if alcoholic liquors relieve or seem to cure one disease, they cause some other, as bad or worse. The pleasurable feelings resulting from the stimulation, lull all suspicion of the mischief going on, which is usually referred to the patient having "taken cold or eaten something to hurt him," or, as not unfrequently happens, that modern scapegoat *calomel* is obliged to bear away all the sin and reproach of this deleterious article. The necessity of stimulants, in such cases, is not so great as is generally supposed. The patient is not always dying when the pulse is very feeble and intermittent. This is no very uncommon occurrence when the excitement of fever is gone. If there are latent nervous energies, nature will call them into action; if there are none, stimulants will have no effect. I would not take the resposibility of deciding the point whether stimulants of any kind are beneficial in these cases, but I do venture the opinion, that if necessary, we have at our command many articles of that kind which should have the preference to alcohol. Of this character are ammonia, oil of peppermint and spearmint, ginger, Cayenne pepper, serpentaria, etc. Some of these act simply upon the primæ viæ as stimulants, and by sympathy upon the brain, heart and other vital organs. If we can give the desired impulse to the

heart, brain and nervous system without subjecting these organs to the poisonous contact of alcohol, much is gained.

South Deerfield, Feb. 7, 1854.

On the Pathology and Treatment of the Diseases of the Scalp, popularly known by the name of Ringworm. By WILLIAM JENNER.—Of the varieties of the skin diseases those affecting the scalp come, perhaps, the most frequently under our notice. Students, and even practitioners, are often extremely puzzled to diagnose these disease of the scalp. This difficulty is partly due to the resemblance of some of them to each other, and partly to the fact that while some writers have given the same name to different things, others have given different names to the same thing.

Several of these scalp affections are popularly called "ringworm," and you must have many times observed the anxiety with which the mother asks whether her child has the ringworm. The cause of her anxiety is, that she understands by the term she employs, a very obstinate and contagious disease.

I propose to consider, to-day, certain of these diseases of the scalp, which bear a highly important pathological, etiological and therapeutical relation to each other, although they differ very greatly in their readily recognizable physical characters.

You are aware that on the mucous membrane of the mouth, in one form of the disease termed apthæ, microscopical parasitic plants are developed in enormous quantity; and that, in the stomach, not uncommon vegetable growths are sarcinæ Goodsirii and torulæ cerevisiæ.

It has been shown, that parasitic plants are also sometimes developed on the skin and its appendages; and in several scalp affections, to which the popular name of ringworm has been especially given, (because they are obstinate and contagious diseases, having a tendency to spread in circles), these parasitic vegetables are found in or around the hairs.

What is popularly meant by ringworm, was, by some of the older writers on skin diseases, expressed by the word tinea; but the technical name being found, as our knowledge advanced, to have no definite signification, gradually fell into disuse.

It has been recently proposed to employ this word tinea again, and to give it a precise signification. Under the generic name tinea, it is proposed* to include all diseases of the hairs

*Bazin *Recherches sur la Nature et el traitement des Teignes.*

produced, kept up, or attended by the development of parasitic plants.

In this genus are included the following species: Tinea favosa, tinea tonsurans, tinea decalvans, tinea sycosa.

Tinea favosa most commonly affects the hairy scalp, but now and then it is found on other parts of the surface. It is characterized by thick, dry, yellow crusts, which, if small, are circular in outline, and depressed in the center, cup-shaped. Passing through the center of each of these crusts is a hair. The larger circular crusts have a diameter of $\frac{1}{2}$ inch, and appear as though made up of concentric rings, alternately yellow and brown in color. If the crusts are very large, they have an irregular shape; but still they indicate their origin from distinct cenetrs by the semi-circular outline of the masses which project from their margin. These large, irregular crusts are pitted on their surface, and from their fancied resemblance to the cut surface of a piece of honey-comb, the disease has received the name of favus.

The margins of the large crusts rise considerably above the level of the cuticle; internally, they seem as though half-buried in the substance of the cutis. Carefully detach the cutis, and a distinct layer of epithelium is found below them; examine the surface of the smaller crusts, and you will find a layer of epithelium covering them.

The hair, at an early period of the disease, can be pulled out from the center of each little crust with great facility. Subsequently it *falls off*, and permanent baldness ensues.

The crusts, then, of tinea favosa, are remarkable for their thickness, dryness, brittleness, and depressed center. Tinea favosa is not a pustular disease, but it is said, by those who have seen much of it, (it is a rare disease in London), to be often consecutive to eczema, impetigo, chronic lichen, and herpes circinatus; pustules are sometimes formed subsequently to tinea favosa, in consequence of the inflammation excited by the crusts, and the injury inflicted on the scalp by scratching.

That tinea favosa was contagious, was placed beyond doubt by Remak. He bound a crust, removed from a patient suffering from this disease, on to his own arm; after a few days the crust and bandage came off, and there was no appearance of any effect having been produced. But fourteen days after, he felt the part itch, and in a short time a crust of tinea favosa formed on the spot.

Tinea favosa is said to occur chiefly in the scrofulous, those mentally weak, and those in bad health.

Tinea tonsurans is often mistaken for herpes circinatus of the scalp, with which it is now and then conjoined. It is characterized by pallor, discolorization, and brittleness of the hairs, and the presence of thin, white, powdery scales around the base of the hairs, and on the skin between them. The diseased hairs have been likened to tow. Their brittleness is sometimes such that every hair on the affected spot is broken off just above the surface of the skin. It is only when inflammation arises, in consequence of neglect, or the application of topical irritants, that crusts are formed on the patches of tinea tonsurans.

In tinea decalvans the hair falls out rapidly from one or more circular spots, leaving a smooth, bald surface. There is no eruption of any kind, no crusts, no scales.

Tinea sycosa is characterised by inflammation of the hair follicles. Sometimes the inflammation leads only to the effusion of serosity, and the exudation of lymph around and into the hair. At other times, and more commonly, pus is formed, and then when the pustule breaks, a brownish scab is formed on the surface. The usual seat of tinea sycosa is the chin, upper lip and cheek. Tinea sycosa rarely occurs on the scalp, and does not spread circularly; so far as I know, the name of ringworm has never been applied to it.

You will have remarked, then, from the characters of the species of tinea I have mentioned, that:

Tinea favosa is especially characterized by its crusts.

Tinea tonsurans is especially characterized by decolorization and brittleness of the hair.

Tinea decalvans is especially characterized by baldness not preceded or accompanied by an eruption.

Tinea sycosa is especially characterised by inflammation, tenderness, hardness, and suppuration of the hair follicles.

I told you that these diseases are arranged together in one genus, because in all a parasitic plant is developed in connection with the hairs. Now, the plant present is different for each species of tinea; and the situation occupied by the parasite is also different in each species of that genus.

In tinea favosa, the parasite is the *achorion Schonleinii*. This plant has mycelium, sporule-bearing branches, and sporules. The sporules are round or oval, and their diameter varies, according to Gruby, from 0.003 mm. to 0.01 mm.

The vegetable growth is first perceptible between the layers of the epithelium, just at the orifice of the hair follicle; from this point it may spread downward between the hair and its

capsule, and upward around and in the substance even of the hair.

In tinea tonsurans the parasite is the *tricophyton tousurans.* This plant is composed of spores only; the spores, however, are occasionally somewhat elongated, and arranged in a linear series. They are round or oval, and their diameter varies from 0.003 mm. to 0.01 mm.

The primary seat of the trichophyton tonsurans is the root of the hair; subsequently, it extends up into the substance of the hair, and even outward, according to Bazin, on to the skin between the hairs.

In tinea decalvans the parasite vegetable is the *microsporon Audouini.* This plant is formed of branched filaments, on which the spores are developed. The spores are very small; from 0.001 mm. to 0.005 mm. The seat of the growth is the outside of the hair; it forms a sort of sheath around the hair, from the surface of the skin upward, from 1 mm. to 3 mm. Gruby first described this plant, and its relation to tinea decalvans, and Robin says, he can confirm the accuracy of Gruby's description.

In tinea sycosa the parasite is the *microsporon mentagrophytes.* It is also composed of filaments and spores; but the spores are larger, and the filaments broader, than those of microsporon Audouini.

The seat of the growth is the hair follicle between the hair and the capsule.

I have told you the names I would have you employ to signify the diseases I have described and demonstrated to you; but you ought also to know the names employed by the writers on skin diseases most popular in this country, to signify the same things.

Tinea favosa, then is called porrigo favosa by Willan and Bateman; favus by Dr. A. T. Tomson, Simon, and many other writers.

Tinea tonsurans is called porrigo scutulata by Willan, Bateman, and Dr. A. T. Tomson; herpes tonsurans by Cazenave; and trichinosis furfuracea by Mr. Wilson.

Tinea decalvans is called porrigo decalvans by Willan and Bateman; vitiligo of the hairy scalp, by Cazenave.

Tinea sycosa is called mentagra by Willan and Bateman; sycosis by Mr. Wilson.

As to the etiological relation of the parasite to the disease, it appears that the spores of the vegetable growth require for their development a peculiar nidus. I say so, because all per-

sons who mix with children suffering from tinea do not have the disease. But if a soil highly favorable to their growth exists, then a spore having found its way on to that soil developes and forms other spores, and so the parasite spreads over the surface of the individual more or less rapidly, according to the more or less favorable nature of the soil.

You will observe, however, that the abnormity of the secretion necessary for the development of these spores is not appreciable by our senses, nor by the sensations of the patient, for Remak did not know, when he applied the favus crust to his own arm, that his skin was not in all respects healthy; nor was he aware, when he removed the crust, that the secretions of his hair-follicles differed from those of the most healthy individual; and it was not till a fortnight after, that he was conscious that his arm was diseased. This experiment of Remak, then, proves that a secretion in which these parasites can grow, may be formed by the hair-follicles, and the patient believe himself to be in perfect health, not only generally, but even so far as concerns his skin; and that it is only when the parasite has developed in the secretion, that what we call the disease begins; then it is that the growth of the hair is impeded, that is altered in color and in intimate structure, that ultimately the hair falls out, and the hair-forming apparatus is so far damaged by the foreign body that it fails to construct even imperfect hairs, and baldness results.

It would appear, from the fact of a large number of children, whose scalps are supposed to be healthy, suffering from tinea tonsurans, when placed in situations where the spores of microphyton tonsurans are floating in the atmosphere, that many persons whose scalps are considered healthy, have in their hair-follicles a secretion suited to be the nidus of this plant.

The patient suffering from tinea comes under our care for the perceptible disease, and will be well contented if we can cure him of that; but it would be better if we could also destroy the susceptibility to the disease—if we could bring the hair-follicles into a state in which they no longer secrete a nidus in which the plant can grow.

Strumous and weakly children, especially if dirty in their persons, are more frequently than others the subjects of tinea; therefore, it has been inferred that struma, debility, and dirt favor the formation of the secretion in question. In the treatment of tinea, then, we strive to enforce personal cleanliness, to strengthen the patient and improve his general health, and *to destroy the parasite.* As to the first and second objects

they are to be effected by attention to hygienic rules, ablution, air, exercise, and diet; tonic medicine, and cod-liver oil especially, are in some cases useful. But you may kill the parasite in all cases, and in many cases cure the disease, by topical applications alone. Agents, the effect of which is to destroy directly the parasite, are called "parasiticides." Several agents having such an action have been brought before the profession. Some physicians use a solution of corrosive sublimate. Acetate of copper has been also employed; but these agents are not sufficiently powerful parasiticides for the small quantity of them that finds its way into the hair-follicles to kill the growths occupying that situation. Therefore, Bazin, who is one of the great advocates of their employment, with the especial object in view of killing the parasites, and not modifying the secretion, says, that it is essential for their efficient action that epilation be performed; that is, that the hairs be forcibly removed from the affected parts. He says, that only two or three hairs should be taken hold of by the pincers at the same moment; and that if this rule be observed, and diseased hairs alone be operated on, the patient suffers no pain from what seems, on paper, a very terrible operation.

It is highly probable that the employment of sulphurous acid, as a parasiticide, will altogether do away with the necessity of epilation. This agent was suggested by Professor Graham, as a possible remedy for cholera, at the time that disease was supposed to depend upon the presence of entophytes in the intestinal canal. It was first employed by myself to check fermentation, and to destroy the sarcinæ Goodsirii and torulæ cerevisæ. When lecturing on this subject, some time since, I said: "Considerable benefit may be anticipated from the employment of sulphurous acid, in all diseases attended with the development of parasitic plants. I would especially mention porrigo."

In regard to porrigo (tinea favosa), these anticipations have been fully realized, and the results of a single case make it probable that the beneficial effects of this parasticide will be equally great in tinea decalvans.

I may mention, too, that in some forms of trush, this agent acts most rapidly, one application of a solution of sulphite of soda* (3j. to 3j. of water), sufficing to remove the disease

* Several medical men have lately administered the hypo-sulphite of soda, instead of sulphite, but the latter is the preferable salt, and for the reason that when the hypo-sulphite is decomposed by the hydrochloric acid of the gastric juice, not only is sulphurous acid liberated, but sulphur is precipitated,—a substance that it is often undesirable to have in the stomach.

from the mucous membrane of the mouth in twenty-four hours. The secretions of the mouth being acid, (?) the salt is decomposed and sulphurous acid is set free; in this, as in all other cases, the sulphurous acid is the active agent in the destruction of the parasite.

I can not conclude without expressing my confident belief, that a great advance was made in pathology when the vegetable nature of the diseases I have referred to, as well as some others, was demonstrated; and my equally confident belief that the foundation for a great advance in therapeutics was laid when Professor Graham called attention to the power of sulphurous acid to destroy vegetable life, and explained how it could be given internally without injury to the patient. †

Instrument for Cauterization of the Larynx.—We find a communication from Dr. J. G. Adams, of New York, now in Paris, in the pages of the Gazette Hebdomadaire, of that city, under date of Jan. 27, 1854. We are indebted to Dr. Adams for a copy of the Gazette, and present our readers with the following translation of the article alluded to:

"Mr. Editor—Through the kind introduction of M Robert, I had the honor of presenting to the Surgical Society, at its session of the 4th December, 1853, a specimen of a tri-branched sponge-holder, the exact counterpart, *in form*, of those in general use at present in New York, with the additions of Dr. Buck, surgeon of the New York City Hospital, and the further improvements of M. Charriere, Jr. Permit me to say a few words respecting the historical and practical details of the same.

"It has been a disputed question, to whom the merit of the invention of this instrument is to be awarded, and likewise to whom belongs the priority of its use in the laryngeal cavity. After careful and conscientious research, I find that the first idea of such an instrument was conceived by Dr. David Green, for the purpose of applying a solution of nitrate of silver to the larynx, pharynx, and œsophagus. He at first made use of a male catheter, to which a piece of sponge was fastened by a thread. After several experiments, he at last adopted a whalebone stem, curved to the segment of a circle at its extremity, to which a sponge was attached with strong twine or wire. One inconvenience attended this instrument;

† The solution of sulphurous acid which I use, is made by passing a stream of the gas through water, until the latter is saturated. Of this saturated solution, two ounces may be added to six ounces of water, to make a lotion.

the twine or wire became worn or corroded in a short time, and consequently the possibility that the sponge might become detached. Should such a thing occur while cauterizing the larynx, a fatal accident would be the consequence. Besides, it was necessary to have a great number of instruments, in order to avoid using the same sponge for different patients. To obviate these difficulties, Dr. Buck attached to the stem a pair of silver nippers, provided with a sliding ring which secured the sponge. Recently, having had occasion to order an instrument with Dr. B.'s addition, M. Charriere, Jr., suggested that it would add to the utility and perfection of the instrument by making the nippers with three jaws; that it would hold the sponge better, and preclude the possibility of its becoming disengaged. In the instrument thus constructed, one of the jaws is furnished with a stopping peg, over which a compressing ring passes, by the aid of a notch (as in the bayonet). When the ring is placed over the rest, it is made to take a half turn; it can not then possibly fall back, and the sponge is secured in the firmest manner.

"As regards the first person who made use of such an instrument for applying caustic solutions to the larynx, Dr. Horace Green, of New York, asserts, in the introduction to his work on Bronchitis, that in 1841, two years previous to the publication of the English translation of the works of MM. Trousseau and Belloc, he was accustomed to use cauterization to the larynx; but the practice of MM. Trosseau and Belloc was known long prior to that time in America, for Prof. J. M. Smith mentions it in his lectures delivered at the University of New York, in 1828.

"The possibility of introducing the sponge into the larynx has been doubted in France. I have, however, thrice proved its feasibility in the clearest manner. Dr. Green goes much further, and affirms he had penetrated *into the trachea to its bifurcation*, and that with comparative ease. It is my duty to repeat the assertion."—*Boston Med. & Surg. Journal.*

Description of Eight Skulls of Flathead Indians from Columbia River. By Carter P. Johnson, M. D., Professor of Anatomy and Physiology, Richmond, Va.—In the justly celebrhted "Crania Americana" of Dr. Samuel George Morton, there are described the measurements of eight skulls of the Flathead tribes of Columbia river. In the eighth section of the second part of "Schoolcraft's history, condition, and prospect of the Indian tribes of the United States,"

upon the "Physical type of the American Indians," also written by Dr. Morton (the last labor of his life), seven additional skulls of these tribes are described. These fifteen skulls are all of which I have seen any accurate measurements, though others may have been published in papers to which I have not had access. Anything which may add to the slender stock of accurate statistical information which we possess with regard to these tribes, will be interesting to the public, and particularly to the medical men of America.

The skulls which I propose to describe were sent to me some time since by Dr. Charles H. Smith, U. S. A., and were taken by him from an Indian mound on the banks of the Columbia river in Oregon. Of the exact location of the mound he has not informed me, and I am therefore not able to state to which of the many Indian tribes inhabiting the banks of the Columbia river these skulls belonged.

The skulls are all in a good state of preservation, with one exception, they are all adult skulls, none, however, presenting indications of great age. They may therefore be taken as good types of the class to which they belong. The specimen No. 8 in the catalogue (vid. table), is not fully developed. The posterior molar teeth have not made their appearance at all, and one of the second molars has but just presented itself beyond the margin of the alveolar process; the remaining three second molars are fully out. In giving the mean of the measurements of these skulls this one will be omitted.

The appearance of these skulls is very singular, and with our idea of physical beauty, we find it difficult to credit the statement that such a conformation is actually regarded as a mark of beauty by those tribes among whom it is found, and that it is so highly valued that their slaves, who are for the most part derived from the adjacent tribes, are not allowed to imitate it. The most prominent deviations from the usual conformation of the skull, are the great flattening of the frontal and occipital bones, and the consequent diminution of the antero-posterior diameter and the increase of the lateral diameter of the skull. The vertex is pushed backward, and the vertical diameter diminished. The basal aspect of the skull is very much altered; the face, retaining its usual width, seems very much disproportioned to the cranium, the lateral enlargement of which is here strikingly seen. These alterations exist of course in different degrees, in different specimens, according to the degree and the duration of the compressing force employed, as will be evident from an exami-

nation of the table of measurements. Owing to the difficulty of applying the compressing force uniformly, I presume, very great distortion is sometimes produced. All of the skulls in my possession are strikingly non-symmetrical, but two of them, Nos. 6 and 7 of the catalogue, are particularly distorted, and in both the flattening has been produced principally upon the left side, leaving the capacity of the right side of the cranium very much the greater. In two of the eight skulls which I have, the frontal suture remains entirely perfect from the sagittal to the fronto-nasal suture. Can this be in any manner the result of the compression of the frontal bones? In seven of the eight, "ossa wormiana" are found, some of them very large.

According to Dr. Morton,* this custom of flattening the head obtains among many tribes, among which are the Klickatats, Kalapooyahs, and Multnomahs of the Wallamet river and its vicinity; and the Chinouks, Clatsaps, Klatstonis, Cowalitsks, Kathlamets, Killemoohs and Chelakis of the lower Columbia and its vicinity. It may not be uninteresting to state the mode in which this curious deformity is produced by these numerous tribes. It will enable us to appreciate their moral sensibilities to some extent.

"The mode by which the flattening is effected," says Mr. Townsend, "varies considerably with the different tribes. The Watlamet Indians place the infant, soon after birth, upon a board, to the edges of which are attached little loops of hempen cord or leather, and other similar cords are passed in front and back, in a zigzag manner, through these loops, inclosing the child and binding it firmly down. To the upper edge of this board, in which is a depression to receive the back part of the head, another smaller one is attached by hinges of leather, and made to lie obliquely upon the forehead; the force of the pressure being regulated by several strings attached to its edge, which are passed through holes in the board upon which the infant is lying, and secured there." †

"The mode of the Chinouks, and others near the sea, differs widely from that of the upper Indians, and appears somewhat less barbarous and cruel; a sort of cradle is formed by excavating a pine log to the depth of eight or ten inches. The child is placed in it on a bed of little grass mats, and bound down in the manner above described. A little box of tightly

* Crania Americana, p. 203.

† Townsend, Journey to the Columbia River, p. 175.

plaited or woven grass is then applied to the forehead, and secured by a cord to the loops at the side. The infant is thus suffered to remain from four to eight months, or until the sutures of the skull have in some measure united, and the bone become solid and firm. It is seldom or never taken from the cradle, except in case of severe illness, until the flattening process is completed."

It is not wonderful tnat the result of this process, to which these unfortunate babies are subjected, is "often ulceration of the scalp and perhaps, not unfrequently, death itself." Three of the skulls in my possession present distinct evidences of ulceration of the frontal bones themselves, and one of them, the youngest, presents upon the frontal bone and the adjacent part of the parietals, that honeycomb appearance so familiar to the pathologist as the result of syphilitic disease.—*Western Journal.*

Editorial.

THE FAULTS OF MEDICAL EDUCATION.

On several ocasions we have presented to our readers, reflections on the defects of medical educatian, and some of the means best adapted to the improvement of the profession; and although the subject, in all its varied relations, has been repeatedly and amply discussed by medical journals, still, there are many questions which remain unsolved, and difficulties unchanged. We have no intention, at this moment, of entering into a general discussion of the various mooted questions involved in the subject of medical education, but rather to introduce one or two suggestions for the reflection of our readers.

There is not much difference in the general course pursued by the medical schools of the United States—all require nearly the same proficiency in the elementary studies, prior to graduation; and, although it must be admitted that there are superior facilities in some for anatomical and clinical instruction, and that some teachers excel others in their ability

to impart instruction, still, the great mass of graduates may fairly be regarded as being on a *par* when they come fresh from the graduating classes. But, by tracing these same persons through the various stages of professional life, it will be perceived that the equality which at first existed, is speedily lost, and the comrades at once part company. Some remain at the lowest point of professional acquirements and prominence; others rise a little in the scale of excellence, but still occupy a position of "sad mediocrity;" while the remaining portion (and usually the smallest) acquire positive eminence. Of this latter class, some become eminent as practitioners of some one or more departments; others acquire reputation as writers, and another class render important services as teachers.

Now, the special question recurs, why this difference? Some will ascribe it to differences in mental endowment, and others may regard the result as mainly fortuitous; and although both of these classes of causes must necessarily exercise an influence over a certain portion of examples, yet there is another cause more general and potent in its effects. *We refer to industry and perseverance in the acquisition of knowledge.* No man can acquire positive eminence in the profession without the utmost perseverance and economy of time; for although much notoriety may be attained as the result of accidental good fortune, or the display of brilliant talents, yet in a large proportion of instances, positive eminence, either in the practice of medicine, or as writers or teachers, results more from industry and perseverance, than any other cause.

The special fault which we had in view when commencing these remarks, consists of a want of general, comprehensive and careful reading. Our profession abounds in numerous and valuable books, which contain the treasures of knowledge flowing from the arduous labors of many generations, and yet it is strange beyond comprehension, that the devotee of our art and science can rest satisfied until he has fully explored

every available source of knowledge. Many will, perhaps be ready to believe that they have fully availed themselves of all means of information within their reach, and, therefore, are above criticism. But let such persons commence a thorough investigation of the most common subject—let them collect the works of standard authors who have written on the subject, and study them thoroughly and completely, and our word for it, they will be as much surprised as interested, in the large amount of new information which will be developed. Many physicians, we are fully persuaded, live in continued ignorance of the most important and necessary knowledge which lies immediately within their reach, and which requires nothing more than the necessary industry to cull it from the numerous books which they might readily command.

The idea which we wish to convey in this connection, will be fully conveyed by the terms *accurate* and *comprehensive* reading. It will not be sufficient to read a single work, nor to read a half-a-dozen *carelessly*, but the whole subject should be most accurately and minutely studied, and the different opinions or facts only comprehended. It is in this way that *monographs* become so important. A writer who is at all competent to the task, presents in a single volume and small space, all that is known on a popular subject—in other words a *monograph* becomes the mirror which reflects the whole subject. And in the same way any person of ordinary comprehension may work out a monograph for himself, and thus become possessed of all the knowledge which pertains to a particular subject.

It is not sufficient that the student, in his private and collegiate course, should read and study the "text books," but, in after life, when entering upon practical duties, the foundation which has been laid, must become the basis of a noble superstructure, far more comprehensive than the original design. Those, however, who remain satisfied with the meager results of primary knowledge, must expect to occupy a "sad

mediocrity," or even a lower position than we before mentioned; and while the annals of the science abound in sterling knowledge, they live on in slothful ignorance, unmindful of the noble truths which lie within their grasp.

We are not utopian on this subject. It is not expected that every one should become critically accurate in the whole range of medical literature; indeed, the busy practitioner could not accomplish so much, and must be content to leave those more intricate and flowery parts to the teacher; but what we insist on, and the profession and world have a right to demand, is, that those who assume the duties of the practice of medicine, should acquaint themselves with all the leading facts and principles which make up the science, and that by continued diligence and unwearied perseverance, they should neglect no new truth, nor fail to comprehend every ray of light shed on the subject.

This constitutes the truly enlighted practioner of medicine, and embraces that class who attain positive eminence.

NEWS OF THE MONTH.

Exsection of the Ulna.—Professor Carnochan reports a case, in the American Medical Monthly Journal, from which he removed the entire ulna, without wounding any of the arteries or nerves of the arm, and without materially injuring the movements of the elbow joint. A diseased condition of the bone had existed for a long time, which not only destroyed the usefulness of the limb, but seriously prostrated the constitutional health of the patient, by causing constant painful irritation of the soft parts and loss of sleep. After the operation the wound healed kindly, and in a short time the recovery was complete. What is most surprising, the integrity and usefulness of the arm and hand are but little impaired.

This we note as another triumph of American surgery, for which Dr. C. deserves much praise.

Professor Clark stated in the Pathological Society of New York, that he had met with animalculæ on the mucus membrane of the tongue and lips of a patient lying in a low state

of malignant disease. His attention was first called to a white "fur" of a mossy appearance, about one-eighth of an inch thick, which was easily removed, and when placed under the microscope was found to consist of epethelial scales, vibrione, and an abundant vegetable growth.

The New York Medical Gazette "pitches into" Dr. Van Buren, the Professor of Anatomy in the University of that city, in this heroic manner: "Dr. Darling resigns the place he had long held under the lamented Pattison, as Demonstrator of Anatomy, leaving Dr. Van Buren to select his successor. If, however, he intends, as last year, only to lecture on the bones, ligaments, *and muscles*, during the whole term, and wholly omit teaching the *blood vessels, nerves, organs of sense*, &c., &c., to the small class paying him to teach them anatomy! he might possibly manage to get through without any Demonstrator, having himself learned as much last year. Such a course, however, is a carricature upon the teaching of his predecessor."

The Buffalo Journal also makes a plunge at the University of Michigan, but meets a rebounding *but* from Dr. Andrews, of the Peninsular Journal, with his "*Bullhead*' first in the defense. Gentlemen, keep cool, or we shall have to prescribe a wet sheet to allay your fever.

Alas! what evils oft environ
The man that meddles with cold iron.

There is some consolation to us in this meridian, however, in noticing these *periodical* thrusts. We find that Cincinnati is not the only place that is *cursed* with professional feuds.

The camphor tree (*camphora officinarum*) has recently been introduced into Louisiana. The experiment, so far, promises to succeed well.

DR. MARSHALL HALL.

We learn from the New Orleans Medical and Surgical Journal that this distinguished Physiologist made some experiments, in that city, on living alligators, to illustrate his peculiar physiological views of the nervous system. The

physicians of the city gave him a splendid dinner at the St. Charles Hotel on the 18th of January, and on the 23d he left for Havana.

Dr. J. V. C. Smith, editor of the Boston Medical and Surgical Journal, has been elected Mayor of that city.

Dr. E. D. Fenner retires from the editorship of the New Orleans Medical and Surgical Journal, and Dr. Bennet Dowler takes his place, giving his salutatory address in the March number. His address is well written, spirited, and filled with true sentiment and a just appreciation of professional dignity, giving us the highest opinion of his editorial ability. We cordially indorse the sentiment of the following remarks, taken from his address: "The science of medicine, affilliated as it is with many collateral sciences, affords ample scope to its cultivators, without the necessity of descending to attack quacks, cliques, and mercenary practitioners, who sacrifice truth, honesty, and science, without the least scruple, for the love of money, or a love of that species of notoriety which is ephemeral even for its purpose but lasting for its moral degradation."

TRANSYLVANIA UNIVERSITY.

Dr. Samuel Annan, Professor of the Theory and Practice of Medicine in the above Institution, has resigned his place, and received the appointment of physician to the new Lunatic Asylum located at Hopkinsville, Ky. Dr. Annan is fully competent to discharge the duties of his new position, and we most heartily wish him success. His learning and ability can not fail to render his services of great value in this particular field of labor.

The Chair of Practice, rendered vacant by the resignation of Dr. Annan, has been supplied by the appointment of Dr. W. S. Chipley, of Lexington. Dr. Chipley is one of the most able and prominent physicians of Kentucky, and we have no doubt his success will more than meet the expectations of the friends of the Institution. No appointment could have been more judicious.

Miscellany.

Puerperal Convulsions. By M. Chailly-Honore.—In a letter addressed to *l'Union Medicale*, M. Chailly says that out of nineteen cases of eclampsia which he has encountered, he has lost only a single patient, and that in her case the intervention of art was differed by circumstances beyond the control of the accoucheur. He attributes these fortunate results to the observance of the following precepts. He advises, if the convulsions occur before labor, the induction of premature delivery, an operation which he considers altogether safe. During labor the ovum should be gotten rid of, by means of artificial dilatations of the os, incisions being employed, inasmuch as they are much less dangerous than the convulsions. Lastly, version or delivery by the forceps must be effected; operations which are inoffensive as far as the mother is concerned, and which can not be compared to the dangers attendant upon eclampsia.

It may be objected, it is true, that the expulsion or extraction of the ovum does not necessarily put a stop to the convulsions. This is true, and the author cites three instances of it from his own practice; but these three women recovered, notwithstanding, and their children lived. Moreover, as gestation and the puerperal state are the primary cause of eclampsia, it is rational to admit that by removing these conditions the eclampsia will be checked, if not immediately, at least in a much shorter time than if no interference was exercised.

There is one point in prophylaxis upon which M. Chailly claims to have first called attention.

Whatever, he says, may be the predisposing causes of puerperal convulsions, albuminuria, anasarca, etc., ect., it often fortunately happens that convulsions do not occur when the labor is rapid, easy, and painless; whereas, if the labor is tedious and prolonged, especially if the womb has serious obstacles to surmount, the attack of convulsions will frequently supervene, as soon as the pains become violent.

Lessen the pain, render it supportable, and you will very probably avoid the convulsions.

It is in such cases that anæsthetic agents, which M. Chailly never employs in natural labor, may be of signal service. This practice, which he considers perfectly rational in cases

in which a predisposition to eclampsia exists, should be the rule of conduct of the accoucheur in all cases in which the contractile pains become insupportable, even where no predisposition is present; for M. Chailly has witnessed cases of puerperal convulsions in which albuminuria could not be suspected, and in which it was only discovered after the unfortunate event.

Fistula in Ano, treated by Iodine Injections. By M. Boinet.—At the meeting of the Institute, of August 1st, M. Boinet read a memoir designed to demonstrate the efficacy of injections of iodine in the radical cure of fistulæ in ano, whatever their form, extent, or complications. Seven cases are detailed, which offer examples of almost every variety of fistulæ: complete, blind or incomplete fistulæ, deep fistulæ, with loss of substance of the intestine, and fistulæ in tuberculous subjects. These observations tend to prove that iodine injections may be advantageously employed in all cases of fistula, but especially in those in which the method by incision is dangerous or ineffectual; such, for example, as extend deeply, or occur in phthisicial patients, or depend upon some alteration of the ischium, the coccyx, or the sacrum.

The advantages of iodine injections over the ordinary method, consist in obtaining a cure more easily and in a shorter time, in avoiding pain and the danger of hæmorrhage, and in permitting the patients to continue at their usual avocations.

The following are the conclusions of the memoir:

1. Iodine injections properly administered, can cure radically all cases of fistula, whether complete or incomplete, simple or complicated.

2. They cure them more promptly than the method by incision commonly employed, and with less danger.

3. They produce no pain, and are easily practiced.

4. They permit patients to follow their occupations, and relieve them from daily painful dressings.

5. They are applicable to all cases, and especially to those in which incision or excision are dangerous or impossible.

6. They do no harm even if they are ineffectual, and do not prevent the subsequent use of the knife. It is, therefore, rational to employ them before having recourse to a cutting instrument.—*Gazette des Hopitaux*, No. 92.

Putrid Gas in the Veins.—M. Maisonneuve has recently

laid claim, before the Academy of Sciences, to having discovered the fact that in cases of violent gangrene, *gangrene foudroyante*, a putrid gas is developed in the veins, capable of determining instantaneous and fatal intoxication. This accident takes place ordinarily as the result of fractures complicated with flesh wounds. M. Maisonneuve observed it for the first time in 1851. Since then he has had several opportunities of demonstrating the truth of his discovery. Putrid gas has been detected flowing in the veins between the gangrenous part and the heart, and death almost immediately follows this event. Four months ago, M. Maisonneuve thought he detected, one morning on removing the bandages from above and about a gangrened limb, the symptoms of intoxication from putrid gas coming on; he cut into a vein at the bend of the elbow, and some spumous blood jetted out; instantly, with the instrument which he held in his hand, he commenced the amputation of the arm, while he sent his assistants on the run in every direction for the instruments and appliances necessary to complete the operation. He saved the life of his patient; and he believes, without the operation, he would have been dead in a few minutes. Messrs. Malgaigne and Chassaignac have already claimed priority in the discovery; but M. Maisonneuve shows, by their writings on the subject of *gangrene foudroyante*, that the first gentleman speaks only of cellular enphysema as the result of traumatic gangrene, while the other speaks of death in these cases being "explained by the sudden decomposition of the blood." But of the nature of that decomposition he says nothing. M. Maisonneuve therefore repeats the proposition on which he claims priority, in these words: "The discovery consists in this, that in a certain form of gangrene, well known to surgeons, and which I designate under the name of *gangrene foudroyante* (gangrene terrible), putrid gases develop themselves spontaneously in the veins, and circulate with the blood during the life of the patient." M. Maisonneuve's researches have placed the truth of the existence of this fact beyond all doubt; I have seen him once myself demonstrate the fact in his wards, to the satisfaction of all present. That this putrid gas once developed in the veins will produce speedy death, is obvious enough, and explains rationally why death in these cases is so often sudden.

Tincture of Mastic as a Hæmostatic.—It is stated in a recent number of *Schmidt's Jarbucher*, that Dr. Frankl has

found the tincture of mastic an excellent hæmostatic. He employs it in epistaxis, and in troublesome bleeding from leech-bites. It is applied to the points whence the blood issues, by means of a camel's-hair pencil. Terzer, a dentist of Vienna, is also reported to have used it successfully in hæmorrhage following extraction of teeth.

On the Medicinal Properties of the Coffea Arabica. By W. HAMILTON, M. B.—It is an important fact in vegetable physiology, which becomes every day more fully developed, that the active properties of the fruit are frequently, if not universally diffused in a greater or less degree throughout the leaves, bark, and other parts of the plant; thus the leaf of the *Vitis vinifera* has been long known to possess the same property of yielding wine by proper manipulation as the berry; and a similar property is now ascertained to reside in the leaf of the coffee shrub, which, by due torrefaction, as has been recently shown in the *Pharmaceutical Journal*, is capable of yielding a beverage equal in all its sensible qualities to that obtained from the torrid berries. But the importance of this discovery may not be confined to the economical, but may also be found to extend to the medicinal properties of coffee, which, becoming reduced in price by this important discovery, may possibly come more extensively into use.

Calculous complaints are among the most frequent and perhaps the most painful maladies of our island, and are not uncommonly connected with gout and rheumatism; but it is not generally known that the free use of strong coffee, unadulterated with chicorp, or any of those other substances with which it has been too much the practice of dishonest dealers to deteriorate the genuine article, is almost a specific for these painful afflictions.

It has been discovered by Dr. Mosley, in his "Treatise on Coffee," that "the great use of coffee in France is supposed to have abated the prevalence of the gravel. In the French colonies, where coffee is more used than in the English, as well as in Turkey, where it is the principal beverage, not only the gravel but the gout, those tormentors of so many of the human race, are scarcely known. Du Four relates, as an extraordinary instance of the effects of coffee in gout, the case of M. Deverau. He says this gentleman was attacked with gout at twenty-five years of age, and had it severely till he was upward of fifty, with chalk stones in the

joints of his hands and feet: but for four years preceding the account of his case being given to Du Four to lay before the public, he had been recommended the use of coffee, which he adopted, and had no return of the gout afterward."

But its efficacy is not confined to the cure or mitigation of these maladies. Sir J. Floyer, who had suffered under asthma for more than sixty years without finding relief from any of the numerous remedies he tried, was at length cured, when above eighty years of age, by the free use of coffee. Other instances of the efficacy of coffee might be adduced, but enough perhaps, has been already stated to induce those who labor under these maladies to make a trial of its efficacy, and convince the dealers in the article of the inhumanity, no less than the dishonesty of imposing spurious, in place of unadulterated coffee, upon their credulous customers.

It is to be hoped that the important fact of the capability of cultivating the coffee shrub in the lowlands, no less than the sub-Alpine regions of the tropics, for the harvest of its leaves, may lead to its more extended planting, both in our East and West Indian possessions, since not only would an additional value be given to ground little suited to other tillage, but a valuable addition made to our stale crops without increasing the amount of human labor in their production. When the dried coffee leaves become, like those of the tea of China, an established article of import into this country, it may be hoped that the market price will undergo such a reduction as to render adulteration no longer profitable, and to induce thousands to prefer this exhilarating beverage to the vile compound of sloe and rose leaves palmed upon purchasers as the genuine tea of China.—*Pharmaceutical Journal.*

Nervous Asthma.—M. Morpain, a French physician, has found that by burning brown paper soaked in a solution of saltpeter in the room of an asthmatic patient, the latter will obtain instantaneous relief. M. Carrie, working out this fact, has had the following poly-pharmaceutical paper prepared for the same purpose: Pasteboard broken down with hot water, four ounces; nitrate of potash, two ounces; belladonna, stramonium, digitalis, lobelia inflata, all in powder, each twenty grains; myrrh and olibanum, of each two drachms and a half. Incorporate all of these with the paste, divide the mass in sheets of the thickness of three lines; dry and divide in little square pieces. Burn them in little saucers in a well shut up room.

Resurrection and Dissection.—We clip the following sensible remarks from the Cincinnati Daily Commercial, and give them a place in the Lancet, that our brethren may see that there are some *newspaper editors* who would not barter true science for a "*Mess of Pottage*":

"There is in the papers a report of a riot at Syracuse, N. Y., which had its origin in the discovery that certain medical students had been engaged in dissecting a human body, which was brought to light by an alarm of fire in the building. There is a certain portion of the public that insists upon being very much outraged by such developments, whenever they occur, and mankind, not unfrequently, appear to act upon the presumption that doctors are an order of *ghouls* who prey upon the bodies of the dead, and medical scholars but little better than hyenas, with an especial fondness for the relics of humanity. * * * * * * * * * But a knowledge of anatomy, such as can only be obtained by actual inspection of the parts, frame-work, and tissue of which the human body is composed, is absolutely necessary to the medical and surgical practitioner, and it must be sought by the use of means that are not only, to the last degree, revolting and disagreeable, but which frequently subject him to severe fines and punishments.

In our own State, there are no legal means by which a "subject" for dissection can be procured, either by the private student or the public institutions; yet one dozen or more of Medical Colleges require them, and have them, and can not do without them. How are they procured? By constant breaches of the law, which the public wink at, until, by accident, the circumstances of some particular case are made known and then there is a sensation, giving the lawless and the insubordinate an excuse for disturbing the peace and breeding a riot, under the pretense of sympathy for desecrated humanity.

The people of certain parts of this city have learned to know the crazy rattle of the vehicle, which, driven by "resurrection men," brings, at dead of night, the bodies of defunct vagrants from the Potters' Field, and conveys them to the dissecting rooms of our Medical Seminaries. There is neither sense nor reason, nor humanity, in this outlawry of the means of acquiring necessary and valuable knowledge. The law is a relic of barbarism, never enforced, except for purposes of individual oppression, and tending only to promote riots and breeches of the peace. How much better it would be by proper enactments to *regulate* a practice which no legislation can suppress

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL AND PRACTICAL ANATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY RESIDENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

No. 5. CINCINNATI, MAY, 1854. Vol. XV.

Original Lectures, Essays and Communications.

A case of Disease of the Kidneys and Ureters, with Extensive Concretions. Reported by A. T. Keyt, M. D.

Subject—Boy, aged 7 years, spare form, delicate features, bright intellect. Learned from the parents that between three and four years ago he began to suffer from pain and trouble in urinating, complaining frequently of pain in his side; that he had had several acute attacks, characterized by fever, pain and tenderness in lumbar regions, trouble in making water.

He came first under my notice in March, 1853, when I was called on account of retention of urine. Examining the urethra, a whitish plug was visible in its orifice. This I readily removed with a pair of forceps, of course to the immediate relief of the retention. This body was three-fourths of an inch in length and one-sixth of an inch in diameter, and consisting of the same material that will be described presently, as being found so abundantly in the ureters after death. The father informed me that several such plugs had been passed within a year. Learning that the case had been under

the care of Dr. Carroll, of Cincinnati, I did not propose any definite treatment.

I was called again, January 28th, 1854, when I was informed the boy had been very sick for several days, which attack came on when he had scarcely convalesced from a previous one, similar in symptoms.

Found him much emaciated, with great muscular prostration, fever, pain, and marked tenderness in loins, frequent and painful micturition; some evidences of gastro-intestinal derangement. Diagnosed nephritis of both sides, and instituted treatment accordingly. Patient died Feb. 4th.

Autopsy 36 hours after death. Externally, both kidneys and ureters presented similar appearances and sensations when handled. The former were not enlarged in the aggregate, but felt like membranous bags filled with fluid; the latter were greatly enlarged, being in no part less than half an inch, and in some parts a full inch, in diameter. They communicated the sensation of containing masses of semi-concrete substance, which would yield, but not disappear, under the pressure of the finger.

On laying open the cavities of the kidneys, and one ureter in its whole course, the nature of the contents were obvious. Muco-purulent fluid filled the cavities, and a white, gritty, plastic substance was deposited along the ureter in quantity sufficient to fill its entire enlarged calibre. The other ureter was not opened, but it evidently contained the same substance. A specimen of this material, which I saved, became, in a few days, hardened into a chalk-like mass. This concretion was undoubtedly phosphatic. A stone one-third of an inch in diameter, was found in the left ureter, near its renal extremity; a patch of vivid redness surrounded it in its bed.

The cavities of the kidneys were greatly enlarged, at the expense of the renal substance; and in the latter, numerous abnormal cells or pouches presented themselves. The parieties of the ureters were much thickened.

The bladder was contracted and empty. The lungs, liver, and spleen were healthy.

This case presents an instance of the destructive consequences of phosphatic urine. The morbid appearances which have been described were evidently the offspring of this diathesis. The deposite taking place and accumulating in the ureters, presented obstruction to the flow of urine along the tubes into the bladder; hence the dilitation of the ureters and cavities of the kidneys, and thinning of the parenchyma of the

latter; the irritation of the concretions in connection with the obstruction giving rise to the repeated attacks of renal inflammation from which the patient suffered, and of which he finally died.

Editors of the Western Lancet:

The subjoined extracts have been copied from an original manuscript which was read before the "Montgomery County Medical Society," at its last session, by Dr. Lamme, of Centerville. The paper was written by Dr. Nathaniel Strong, of this county, and read before the Fourth District Medical Society of this State, in 1817. The theory presented was severely criticised, and pronounced visionary, by some of the members of that association. Subsequently, the article was offered to Dr. Drake, for publication, but was refused a place in his Journal on account of its unorthodox principles.

Meeting with such unwelcome reception. the MSS. was consigned to the private secretary of its author, and refused the sun light of heaven for thirty-five years. Since that time the theory here advanced has become one of the fixed facts in abstetric medicine; and the honor is awarded to Dr. Rebort Lee, of London, for demonstrating the fact. Had the principles advanced in Dr. Strong's paper been made known to the profession, they would have led to the demonstration of the dependence of menstruation, upon the development and escape of ova, at a period long anterior to that in which Dr. Lee proclaimed his discovery. As far, however, as the originality of the idea is concerned, the fact that it has not been made known to the world until the present time, does not invalidate Dr. Strong's claims in the least degree. The evidences that this is a relic of the past are conclusive, from the date, dusty, faded appearance of the MS., and the style in which it is written; and that the author associated in his mind the escape of an ovum and the menstrual flux as cause and effect, may be determined by any one from the language.

Dr. Strong was one of the pioneers of medicine in Ohio, and is endowed with a clear, reflecting mind of an original cast. He is now far advanced in life, and has long since declined the active duties of the profession.

"At a certain age the female organs of generation become perfected. The ovaria bursts and parts of generation begin to enlarge, in consequence of a new susceptibility. When this change takes place, it being in consequence of a rudement or egg having acquired a size too large to be longer retained, a

kind of irritation or increased action of the vessels of the parts takes place, by which it is forced from its bed as an extreneous substance; at the same time it is grasped by the fimbria of the fallopian tube and conveyed to the cavity of the uterus. The blood which issues from the bed, where it laid, is likewise conveyed through that tube into the uterus. Not finding suitable nourishment for its sustenance, it (the ovum) is discharged by that organ as an extrenuous body, together with the blood that followed its separation from the ovaria. This process continues to occur at stated periods during a number of years in the female subject, and constitutes the catamenia or menses."

After amplifying to a considerable extent upon this postulate, the author sums up the facts in the following language: "It is to be remarked that the hitherto inexplicable cause of catamenia is here explained. The ovum, when separated from the ovaria, which happens once in four weeks, passes through the fallopian tube into the uterus. It produces the same effects upon that organ as pregnancy does—an enlargement of cavity and an increase in the size of its blood vessels. But not being impregnated, it looses its principle of life and becomes as a *rotten egg*, which proves a source of irritation, producing a disposition in the uterus to expel its contents, together with its increased quantity of blood, by which it had been distended above its natural size. Faithfully,

DAYTON, Ohio, April 8, 1854. H. G. CARRY.

Proceedings of Societies.

An Essay on Ergot, read before the Cincinnati Medical Society. By J. P. WALKER, M. D.

Of the many medicinal agents with which our Materia Medica abounds, none, it appears to me, have given rise to so much discussion, or been subjected to so varied opinions, as the one now under consideration; and considering the power which by one party it is *made* to possess, and the conditions under which it appears to be regarded, we do not wonder at its engrossing so much the attention of the medical world—no *other* agent being granted so *decided specific* action on the tarine fibre. Again, its being endowed with such properties,

would render it necessary that the utmost caution be observed in its use; for if in ordinary practice we are made to feel the high responsibility in the life of an individual intrusted to our care and skill, must we not feel still further concern when about to employ such means as will lead us to uncertainty as to the effect liable to be produced on the vitality of two beings for whose welfare we must hold ourselves responsible, if not to the world, to our own consciences.

Without, however, wishing to deprive it of any *due* merit, or allowing it any favor of which it may prove undeserving, we will endeavor to present its position as far as conflicting authorities will permit.

The first notice we find of ergot is that given by Sugebert de Grumblour, in 1089, who presented its deleterious effects upon the human system. Wendeline Thelius also attributes an epidemic which raged in Hesse, to the presence of this substance in the grain; this was also noticed by the medical faculty at Maiburg, in 1597, who published a pamphlet, showing forth the injurious effect resulting from its uses. In 1648 and 49 both Saxony and Sweden suffered from an epidemic attributed to the same causes. The same results were witnessed at Blois and Montagus, in France. In the memoirs of the Royal Society of France an interesting account of a series of experiments and observations by M. Tressier, made in 1777, are recorded, showing its baneful influence perfectly independent of the causes supposed by *some* that these effects were due—such as vicissitudes of weather and temperature. Thus far it was only known as an agent of evil. In 1688 Camarerius stated its having been used by the German midwives as a uterine remedy.

Ramsbotham remarks, that when first introduced as an agent capable of producing contractions of the uterus, it was viewed by many of the profession with distrust, but the evidence accumulating in proof of its powers as such, they were *obliged* to admit it, but objected to its use on the ground that if it possessed such influence over the uterus, the virtue must be obtained at the expense of the constitution; that it must act on the uterus through the arterial system; that it should be classed as a stimulant, and as such must produce dangerous excitement.

Among the various qualities assigned to this medicine, and the benefits arising from its use, even in diseases and conditions of the system presenting pathological and symptomatic lesions directly opposed, we collect a few which might lead to the

supposition that ergot was what is vulgarly termed a hobby for numerous candidates to fame; that it produced powerful contractions of the uterus, and it is magical in the relief of after pains; in producing as well as preventing abortion; that it will give rise to pueperal convulsions, though it has been used successfully in *relieving* pueperal convulsions and hystera. In curing menorrhagia, dysmenorrhœa and amenorrhœa we are also informed that it will produce paralysis of the detrusor muscles, though the same condition has been relieved by its administration—favoring strongly the doctrine of Hanneman, "*similia similibus curantur*," and requiring merely a proper regulation of the quantity required in each disease to render it a universal panacea.

Among the authorities enjoying the most extensive reputation, we find considerable differences as regards its action on the uterus *during labor*, with which we are now more immediately interested. Dr. Dewees states, the action of the ergot appears to be specifically upon the uterine fibre, urging them sooner or later to more or less violent contractions.

Dr. Bayh, from a collection of statements made by others, reports 1176 cases of labor in which it had been used; it failed entirely in 117 cases, and in 14 its effects were *moderate*.

Ramsbotham states, without hesitation, that its action is specific, and that the arterial system is not disturbed by its administration.

Dr. Meigs considers it an expulsive agent, but is not in favor of its use as such.

Cazeux also speaks in favor of it as an agent capable of producing uterine contraction, but in a manner which would lead us to suppose not from his own experience.

From Trousseux and Maisaune's essay, we learn they have come to the conclusion that ergot exercises on the uterus a powerful but transitory action, and that this action chiefly affects the uterine fibres and determines their contraction.

On the other hand, Moreau, without denying its action as an agent capable of producing contraction, considers it as producing contractions so diffused as merely to compress the contents without aiding the expulsive force, arising from the simultaneous contraction of the os with the body of the uterus.

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In this brief manner I present the views of the various authorities on this subject, and admitting from these that its action is established, how much soever it may differ from my own observation and opinion, my experience having been too limited to furnish data for others guidance, being confined to six cases, and these for the sake of testing its properties for myself; but under such circumstances as were perfectly justifiable, even such as would be represented by some as actually required. No perceptible effect was, however, manifest; probably it is particular in its action as the knocker's spirits, extending friendly aid to none but true believers.

There is no condition which we can fairly present as analogous to that of parturition—no group of symptoms and concomitants requiring more *close* scrutiny—no circumstances which demand so much allowance and care in observing the effect of remedies, and drawing from thence just conclusions of their *actual* merit. All will admit they have attended cases where pain, after continuing for some time, ceases almost altogether; the patient, weary from her pains now mitigated, perhaps falls to sleep, and the attendant, anxious to attend to other matters is tempted to leave for a while, or rouse the uterus again into action by means of ergot or other uterine or general stimulant. But whilst deciding on the course to be pursued, or having decided, is preparing the medicine for administration, the woman is aroused from her gentle slumber by pains at once strong, continuous and effective (such as are ordinarily attributed to ergot), and the child is delivered without further difficulty. Again, a cup of tea has raised the flagging pains, producing apparently such violent contractions, and so directly referred to this as the cause by the patient, that she earnestly entreats its discontinuance. That *imagination* will produce a powerful action of contractile force of the uterus is sufficiently evident; we will, however, at the risk of being considered tedious, relate the following: "To a lady suffering from hemorrhage, after abortion, I administered ergot

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We may add to the list of those who deny its action, Jackson Hall, and others.

In this brief manner I present the views of the various authorities on this subject, and admitting from these that its action is established, how much soever it may differ from my own observation and opinion, my experience having been too limited to furnish data for others guidance, being confined to six cases, and these for the sake of testing its properties for myself; but under such circumstances as were perfectly justifiable, even such as would be represented by some as actually required. No perceptible effect was, however, manifest; probably it is particular in its action as the knocker's spirits, extending friendly aid to none but true believers.

There is no condition which we can fairly present as analogous to that of parturition—no group of symptoms and concomitants requiring more *close* scrutiny—no circumstances which demand so much allowance and care in observing the effect of remedies, and drawing from thence just conclusions of their *actual* merit. All will admit they have attended cases where pain, after continuing for some time, ceases almost altogether; the patient, weary from her pains now mitigated, perhaps falls to sleep, and the attendant, anxious to attend to other matters is tempted to leave for a while, or rouse the uterus again into action by means of ergot or other uterine or general stimulant. But whilst deciding on the course to be pursued, or having decided, is preparing the medicine for administration, the woman is aroused from her gentle slumber by pains at once strong, continuous and effective (such as are ordinarily attributed to ergot), and the child is delivered without further difficulty. Again, a cup of tea has raised the flagging pains, producing apparently such violent contractions, and so directly referred to this as the cause by the patient, that she earnestly entreats its discontinuance. That *imagination* will produce a powerful action of contractile force of the uterus is sufficiently evident; we will, however, at the risk of being considered tedious, relate the following: "To a lady suffering from hemorrhage, after abortion, I administered ergot

in doses of 10 grs. every 4 hours, for 24 hours, without producing any apparent action on the uterus. I then gave in pill 2 grs. of the same, to be repeated every two hours; but before the expiration of the time for the repetition of the dose pains had come on so violently as to call forth most irresistible supplications from her for the discontinuance of the medicine, which she had decided was the cause of all her misery.

How was this to be accounted for? we asked. I could not rationally suppose that the Hahnnemanian doctrine was thus so strikingly to be supported, or that medicines act with more efficiency in inverse ratio to the quantity employed.

The expression, "Oh, Doctor, don't give me any more ergot; I shall surely die if I take any more," first led to the true solution of the mystery. Upon enquiry, I learned her husband told her the Doctor was now "going to give her fits," as he had seen secale cornutum on the prescription, which information, with a knowledge of its supposed power, was capable of producing, by mental impression, what could not by a much larger quantity be produced by a direct or reflex action.

Another case which will substantiate the ground, that even the attending physician may be deceived by giving to ergot the credit justly due to the powers of nature.

I was called upon, a short time since, to attend a lady who always had suffered from lingering labors. Finding, in this case, that the pains were becoming feeble and inefficient, the labor making no progress, I determined on trying the ergot, which was accordingly prepared, with directions to the nurse to give one-fourth and repeat, if necessary, in 15 minutes, whil t I awaited the result in an adjoining room. In less than 25 minutes evidences of pain demanded my presence, and delivery was promptly terminated, with scarce a remission, resembling in every respect those attributed to ergot. Certainly, we thought, this is one evidence of the power of the remedy. Wishing to ascertain the quantity taken, I was surprised to find the cup with its contents undisturbed. Upon asking the nurse if she had given the medicine, she promptly answered, "Yes, sir, oh, yes, I gave her half the quantity in the cup," at the same time handing me what she had mistaken for the infusion, a cup containing the remains of some toast water. If the ergot had been given, or had we not discovered the mistake, it must undoubtedly have changed our opinion of it somewhat; but we have yet to learn whether toast water is capable of producing uterine contractions.

Another point deserving attention, and which, if closely investigated, will account for many cases in which the action of this agent has perhaps appeared as if unquestionably useful. From statistics carefully collected, and which each from his own experience, can satisfy himself of its correctness, there are certain periods in the day and night in which expulsive pains are most manifest, and labor is more frequently terminated. By still further inquiry it will be found that ergot has been most efficient during these periods, viz: from 2 to 5 A. M. and 2 to 5 P. M., rendering still more doubtful, to our mind, whether it was a *recurrence* of nature's unassisted efforts or whether it was produced by the medicine. Another question, demanding our serious consideration, presents itself. How is it that this agent acts so powerfully in the hands of one and totally fails in the hands of another (for there are authorities unquestionable on both sides)? Dr. Bayle, already alluded to, furnishes a list from 62 authorities, presenting in all 1176 in which this remedy has been used—in 1051 labor was more or *less* promptly terminated; in 111, 10½ per cent, it totally failed, and in 14 its effects were *moderate*. Chasseur and Madame La Chapelle have found it fail altogether.

Dr. Skinner reports 60 cases in which he has used it, without witnessing the slightest benefit from it, whilst in the hands of other eminent authorities it scarcely ever fails.

An attempt has been made to account for this contradiction by making the supposition that the article used was not genuine, or had lost its virtues; but we certainly can not suppose such could be the case in *all* these instances.

If we take, for example, Madame La Chapelle, a person enjoying the most extensive field for observation and experiment, possessed of untiring industry and zeal in the advancement of her profession, it *can not* be supposed, when fully determined, as she appeared to be, to test its properties by administering it in every form, that she would remain in uncertainty as regards the genuineness and goodness of the article employed.

It would be an absurdity to suppose that its constant failure in the hands of one man could be owing to the use of an inferior article on *every* occasion, when those who use it with success can obtain at *all* times a good specimen. We, ourselves, have known the same article used within 60 hours, by different individuals, with reported results diametrically opposite

Prof. Wright, of the Ohio Medical College, in 1847, related

some instances of an interesting character, which I regret not having noted at the time. One, as nearly as I can recollect (and which if not correct I hope he will rectify), was in substance as follows: A medical gentleman, with all the zeal of one who wished to convince an unbelieving brother, wished him to go and see the effects of ergot in a case of lingering labor. He went—saw two drachms of the substance given within an hour, without any change, whatever, in the condition of the patient being manifest. The article was consequently condemned as being inferior; the gentleman knew, however, where he could get that which never failed. Two drachms of this infallible specimen were obtained and administered, without producing any effect: a third was then tried, but with results as fruitless as the first.

How can this be accounted for?—if the article provided from three different sources has proved a failure, and those known to be generally effective, under what circumstances can we suppose ergot of such a quality can be obtained as will answer our expectations? Assuredly we can not attribute its inertness to adulteration; the article is not of sufficient value to excite a suspicion that such would be resorted to. Admitting even that it was so adulterated as to contain but *one third* of the pure ergot, there would be still sufficient (as appears from the quantity generally found effective) to produce the effect ordinarily ascribed. But let it be understood, that we do not give this as a solitary case; many of a similar character could be related, but we must pass to the consideration of other points.

Its failures, by others, are attributed to peculiar idiosyncrasies, constitutions capable of resisting its influence. *Extraordinary discovery!* can we suppose that all those individuals treated by Madame La Chapelle, Chasseur, Desormeux, Capuron, Groch, Skinner, had all this peculiar idiosyncrasy?

The *same* argument might be preferred to show the preposterous idea of granting to it the character of specific. Can we, among all our medicinal agents, produce an example of any other agent possessing the quality deemed specific, with such a range of exceptions and short comings in its action? Does nux vomica demand an allowance of 25 per cent, in the cases in which its administration is attended with tetanec spasms in a physiological condition? which we also claim the parturient state to be. Has calomel, jalap, gamboge, &c., ever failed to produce catharsis, or ipecac, tart. emetic, sul-

phate of zinc, or copper, been known to fail in producing emesis or catharsis? will alcohol fail to produce intoxication? Then why, we ask, *why* should this specific fail so frequently (if it is a specific) to produce its *specific action?*

Again, as a specific the question arises, as to whether ergot is capable of originating uterine action when labor has not already commenced.

In Taylor's Medical Jurisprudence, Dr. Shapter, as medical jurist in a case of attempted production of abortion, states, in his evidence, that he did not think ergot would act, unless the natural action of the uterus had commenced—a statement supported by a number of authorities. Subsequent to the trial he collected the observations of many obstetric writers, and so far modified his opinion as to admit that ergot might, *occasionally*, exert its specific action in cases of *advanced* pregnancy. Ramsbotham reports only three cases in which its effects were apparent, and in these pregnancy was far advanced. Desgranges states, with decidedness, that it has no effect on labor, if given before the os uteri be dilated four or five lines One of our most distinguished lecturers on obstetrics, in Cincinnati, takes the same position. This consideration will, in itself, be sufficient to deprive it of the title specific; being, at the farthest, an agent capable only of continuing an action already commenced.

Admitting, even, that it possesses the power assigned to it by its advocates (that of producing contractions of the uterus), allowing no intermission, producing a continued expulsive action till it is emptied of its contents, we can not, for a moment, divest ourselves of the idea that danger must accrue to both mother and child. Do we never hear of peritonitis following its use? Most assuredly we do; accounts of such occurrences will be found in *many* of the medical journals. Dr. Cattell reports three cases of puerperal convulsions, which were clearly traceable to the effects of ergot. The same gentleman has, from experiments, came to the conclusion that it favors hour glass contraction. We learn from a report of Dr. Daniels, a case in which delirium and insensibility speedily followed the exhibition of ergot. He states, that during the state of active deliriam no contraction of the uterus took place, and as insensibility followed, instrumental delivery had to be resorted to; but the patient died within two or three days after delivery. He also adds, that he has observed in other instances the induction of delirium by the same agent.

Can we wonder, from its assigned mode of action, that ruptured uterus would be one of the results of its adminis ration? It appears strange to us if it would not frequently be a consequence. We will not farther investigate the dangers attending its use on the mother, but will here remark, that if it is capable of producing these powerful contractions of the uterus, it is as surely capable of giving rise to convulsions, peritonitis, delirium, rupture of the uterus, lacerations, contusion and sloughing of the soft parts; and to these we may add the many *uterine diseases* so difficult of relieving. We might here notice a condition of the os uteri, which is deserving of attention, as one in which we might be easily deceived, and in which a genuine *ergotero pain* must be productive of serious lesion, if not fatal results. I have frequently found the os uteri, during the absence of pain, dilated and easily dilatable, but when a pain was present, full contraction, with rigidity, occurred; and if, as the advocates of ergot state, that its most prominent action is exercised on the circular fibers, what less than an augmentation of the presenting evil can be looked for? and who claims so delicate discrimination as to discern when such a condition may occur, especially when not called upon before the uterine action has, in some degree, been suspended—that period when alone ergot is really admissable, if at all.

That it exerts an untoward influence on the child, not even its most strenuous advocates will deny; most of them, however, only admitting that asphixia may be produced by the long continued contraction. But we claim, that not only are its injurious effects evident as produced by interruption of the *placental circulation*, but by direct absorption when the delivery is delayed.

This may, at first, appear as an argument easily put aside, but when it is considered that all the authorities admit a degree of uncertainty as to the time its action may be manifested in producing contraction, it will be found to bear some consideration, taking into view, also, the fact that its poisonous properties may exert their full influence without its alleged specific action being produced. That it does not always exert its deleterious influence upon the fœtus, by destroying the continuance of the circulation, is supported by numerous authorities; and many, I am sure, will recollect cases where, after its use, it was impossible to establish respiration, though the cord still continued to pulsate. In support of this, we will quote from Dr. Beatly, who, with many other respecta-

ble practitioners, thinks that ergot of rye produces a noxious influence on the nervous system of the infant during parturition; and to this effect may be attributed its fatal tendency in many cases independent of the asphixia, which in other cases it is said it produces by the continued and uninterrupted action of the womb for a certain length of time. Dr. Beatly cites a number of cases, from which he draws the conclusion (we think fairly), that in most cases, if the labor be accomplished within two hours after the exhibition of the medicine, the bad effects on the child will not be seen; on the contrary, when the time exceeds *two* hours, the danger to the child will be great. He says the condition of the infants was very unlike that of still-born children delivered under ordinary circumstances, and when no ergot had been administered to the mother. The distinguishing characteristics are, *general lividity* of the surface, the *universal rigidity* of the *muscular system*, producing the *stiffened limbs* and *clenched hands* in those infants in whom life was extinguished, and a remarkable kind of *alternating spasm* and *palsy* which supervened in those resuscitated. The nearest approach to this state is new born children, and that which it most resembles is the condition in which children are born dead, with symptoms of congestion of the cerebral blood vessels, in whom, it is true, we find the countenance suffused and livid, but the *peculiar affection of the muscular and nervous systems is wanting.* Children presenting this appearance of congestion, are usually born after difficult labor; but in those cases reported by Dr. Beatly, some were tedious but none were difficult.

The limited experience of one man can not be set down as a rule or authority, especially when in opposition to the observation and experience of others of more extensive investigation. Still no man, of an intellect capable of reflection, will yield his own experience in practice for all the authorities which may be brought before him.

During my practice in this city I have attended over 300 cases of labor, embracing people of all nations and classes—American, English, Irish, German, Welsh, Scotch, African, and Indian—from the lady raised amid all the luxury of life, to the houseless mendicant—of occupations, from the actress on the stage to the professional rag-gatherer on the streets—from the silk-slippered carpet to the earthen floored hovel—but in all, I can not admit having found a case in which a necessity existed for the use of ergot, or any other agent, except where difficulty presented from a mechanical obstruction, which of course would not admit the use of ergot.

Taking as our guide the observations made in those cases, as well as the physiology of the function and organ, we have formed the opinion, *that there is no necessity for any such agent as ergot to expedite delivery;* and being none, we should consider ourselves criminal in the use of an article which is productive of no benefit, or at least can be dispensed with, and at the same time may be productive of mischief to one or both—mother and child.

We contend that nature is capable of performing this important function without the aid of medicine or manual interference, unless in cases of malposition or mechanical obstruction. *Rest* and *nourishment* I have never known to fail in bringing on uterine action sufficient to accomplish delivery. Is it natural, we would ask, when nature becomes exhausted, to goad a debilitated organ to convulsions? Can it be done without serious injury? Is there any other muscular organ in the system which would not be sensibly affected by such action? Would we give stimulants to aid the overpowered efforts of the heart's action from a congested pulmonary circulation? Certainly not. Could we, to the overtasked brain, perhaps verging into an inflammatory condition, give stimulants without expecting to give rise to serious mischief? We certainly answer no! They may, it is true, perform some labor for the moment; so will the wearied horse under the whip and spur; so will a man under the influence of stimulants; so will the person laboring under a fit of insanity perform feats of strength which in his natural state would be utterly impossible; but what are the results? *Exhaustion must*, sooner or later, take place, and *what condition will so readily lead to congestion as this nervous debility?* and what more akin to inflammation than this *dilated* and *congested* conditions of the *capillary circulation*?

Can we suppose that the uterus, from any peculiarity of structure, whether vascular or nervous, is exempt from the influences which so affect other structures, and if not, what is more in keeping with the general received doctrines of recuperation than rest and such nourishment as nature may require to aid in restoring her lost power of action?

This course has been pursued by myself, and in proof of its utility I will add, that I have never had to encounter in my practice a case of puerperal fever, alarming hemorrhage, or any other unpleasant circumstances following labor; and only *three* cases of still birth, two of which were in a state of decomposition prior to labor, the third requiring the use of the forceps for its delivery.

Dr. CARROLL said: The paper for discussion before the Society makes claims upon the score of experience, which, he thought, would not bear very well the test of severe criticism. The author claims, in this essay, of having been the accoucheur in 300 cases within the past six years—that these cases have occurred among all classes of society, comprehending the most humble and the most elevated, and that he has almost always succeeded in bringing about delivery without any other aid than the simple efforts of nature. Upon this, Dr. C. said, that he understood him to predicate the conclusion that medicine having the powers attributed to ergot, is seldom or never necessary. Now, sir, said Dr. C., young physicians, during the first years of their practice, are by no means apt to have the same number of difficult cases committed to their care in a given number, as they have in more mature years. The lady who marries late in life, is particularly careful that at her first accouchment, her physician is a man of experience, and so, also, are those who have had difficult labors; even the young lady feels that she, at her first confinement, should have some one of skill to attend her—her idea of skill being, but too often, age and experience. Dr. C. observed that during the first several years of his professional life, he had had fewer cases of difficult labor in the same number than after he had obtained more reputation in the obstetric art. He then found that he had to attend on cases out of his usual rounds, and that he had not unfrequently found them of a difficult character, needing more the experience of art. But, said he, the gentleman has told us that he has never used the ergot but in six cases, and that he is not satisfied that it had any effect. He does not, however, inform us whether he had used an article that ought to be relied on or not. Now, it is a matter of no small moment that before an article of the materia medica be discarded, that it have a fair trial, which can only be given to it by using in a sound condition, and in a sufficient number of times, and under proper circumstances, to leave no doubt that the fairest trials have been made. But, said the Dr., these observations are especially applicable when the ergot is administered. The article, said he, should not be given after the vagina, and after the soft parts have become excited and inflamed, and after the head has been for some time pressing against the perineum. At the close of long protracted labor, too, it was not proper to rely on this agent, for then the physical organization was in an unhealthy state.

He said: When this medicine is given he thought the rules laid down by M. P. Dubois should be pretty closely followed. These rules are in the following terms:

"It should not be given during labor, in case of feeble uterine contraction, or of complete inertia of the womb, except when the pelvis is well formed; the head of the fœtus has its natural dimensions, and the presentation such as to admit of spontaneous delivery. Thus, it should not be given in presentations of the trunk, or when there is serious difficulty about the neck of the womb, either in consequence of a morbid condition, or want of dilatation; nor should it be prescribed until after the rupture of the membranes, and the proper dilatation or dilatibility of the neck. Care should likewise be taken not to administer it when the head is in the pelvic cavity, or at the vulva, and when the fœtus is in danger. It is necessary under these circumstances to have recourse to the forceps.

"It should not be given, if possible to women with their first children for fear of a too rapid delivery, which might endanger the perineum; nor to nervous and very irritable women, nor to those who are laboring under symptoms of congestion or plethora, or whose uterine sensibility is very much heightened, and who are disposed to inflammation."

Now, said Dr. C., the neck of the uterus must be in a dilatable condition, and partially dilated before the administration of the ergot, and then, according to Dubois, it may be relied on in completing the dilatation, and to bring the head low in the pelvis. But when it has arrived at a point where there is unusual pressure on the perineum, then the ergot must not be given, but the forceps must be resorted to. These views of M. P. Dubois, he said, he believed in, because long before he knew the opinion of that great man on this subject, he had found by observation and experience, that similar rules should be relied on.

But the essayist, said he, wished to show that his objections to the use of the ergot rested on two points. The first, that the ergot has not the powers that are attributed to it as an agent that can excite the expulsive powers of the uterus. And secondly, that such an agent is not desirable, as nature does, if let alone, in almost every instance succeeds without any assistance. This last part he had considered. The former he thought the essayist had had not made clear, either by the history of his own trials or by arguments drawn from other sources. The trials made by the gentleman had only

been made on six individuals, and apparently with little or no care with regard to the purity of the medicine. He, on this slender basis, satisfies himself that ergot has not the powers attributed to it. Now, said Dr. C., every physician knows that we have in this city but very little ergot that can be considered good; no one knows how long since it was ground, nor when it was gathered. Chailly says that the ergot should be pulverized at the moment it is to be used, otherwise it loses its virtues. Similar views are entertained by almost all medical men, or those in the habit of using this medicine. Chailly also tells us that "this medicine possesses the property of increasing and exciting the uterine contraction; no one at the present day seems to doubt this fact." His last clause in the sentence is very hard on the opponents to the powers of ergot. But, Mr. President, said Dr. C., let us come to the country where this article of the materia medica was first brought to the notice of the medical profession, and let us see what is said about it there.

Professor James, whose judgment and medical learning, stands almost unrivalled on this side the Atlantic, tells us in cases where the contractions of the uterus are inefficient from want of energy, or irregular action of the uterine fiber, provided the cervix and os uteri, as well as the external parts, are sufficiently dilated or disposed to dilate, recourse may be advantageously had to the ergot. Under these circumstances he has frequently derived the most decided advantage from its use, given in fine powder in the dose of a scruple in syrup, and has seldom had to repeat it. In the corroboration of this opinion may be added those of Drs. Stearns, Prescot, Bigelow, Dewees, and many others. Professor Wood, of Philadelphia, says, "given in small doses, ergot produces on the system of the male no obvious effects; but, in the female, exhibits a strong tendency to the uterus, upon the contractible properties of which, it operates with great energy."

Now, said Dr. C., it is obvious from what has been shown that the ergot has been but too often given, when the forceps should have been relied on. It would seem, from the authorities quoted, that the mouth of the uterus must be in a dilatable condition, and partly dilated, before the administration of the ergot, and that then it may be relied on with much confidence, for the complete dilatation of the mouth of the womb, and to bring the head low in the pelvis and in the genital, for the completion of the labor. But when the head has arrived at a point where it presses strongly on the peri-

neum, and delivery does not take place within a reasonable time, instruments should be resorted to.

Sometimes, said Dr. C., the ergot seems to have an injurious effect. In such cases the labor has generally been allowed to exist too long before its administration, or there was fever, or idiosyncrasy which seemed to prevent the action of the medicine in the usual way. In these cases he had found that a tonic contraction of the uterus had taken the place of the natural pains, and that this tonic contraction had not proven enough to bring down the head. He now recollected a case which would go to prove this position.

A woman during her first labor had taken the ergot for the purpose of completing delivery, after the head had been pressing on the perineum for some time. The natural pains gave way to a continuous contraction of the uterus without the expulsive force being excited, at least, in a sufficient degree. This condition went off after some time, and the woman was delivered of a dead child. Inflammation of the vagina was now set up, which resulted in ulceration and destruction of part of the mucous coat. This ulceration resulted in obliteration of the vagina above the meatus urinous. He, Dr. C., was present when a bungling operation was performed for the relief of this woman, but was not then successful. On the ensuing day, however, the retained menstrual fluid found its way through the channel. The amount discharged was large; but the aperture left, would only admit a small quill. Notwithstanding, this woman soon after the operation became pregnant, but aborted at the end of the third or fourth month. A quack attended her on this occasion. The vagina, by the abortion, regained some of its wonted caliber. In due time pregnancy again occurred, and went on to the full period. The same empiric was now summoned to attend at the delivery, but labor was long and laborious. The Dr. became alarmed, and Dr. C., was called. He found that the lips protruded, and that the breech was still within the womb. He, however, with some difficulty got a blunt hook in the groin, and slowly brought down the child through the contracted part of the vagina. The delivery was difficult, but no ulceration resulted, and the patient soon recovered, with a greatly improved vagina.

Some 18 months after this delivery, Dr. C. said he was called to this woman who was again in labor. He waited patiently for hours, or until he thought the neck of the uterus was in a proper state for the exhibition of the ergot, when he

administered a pretty full dose. He soon found that the medicine had partially its specific effect, but he found that the labor did not advance. There was a constant weariness, with but little expulsive power. He let the effect of the ergot subside, when the natural efforts of the womb returned, and he waited long for the dilation of the soft parts. Being five or six miles away from home, and in the night, he could not obtain his forceps at the time which he wanted them. Some 10 hours after he wished to use them, the child was born—but born dead. Now, Dr. C. said that this child would very probably have been saved, had the forceps been used at the proper time.

This same woman again became pregnant. Dr. C. said that he determined to take another course at her accouchment. He concluded that the ergot had done injury instead of good, and that the best course would be to do very little for the patient during the first stage of the labor, but to wait patiently until the head arrived in a proper situation for the use of the forceps. He, when the labor began, directed the bowels to be opened with oil, and then determined to await the efforts of nature. He gave directions to a young physician whom he left in charge of the patient, to give no medicine until his return, as he had to be away some three hours. He left, and the labor progressed so well that before his return a living child was born. Thus, said he, after this patient had suffered in delivery and abortion all that humanity could well endure, she was at last blessed with a living child.

Dr. C. said he had several cases of a character similar, as to the effects of ergot, as the one just stated, and that such facts, with other considerations, had long determined him to use the forceps much earlier than he, during his early practice, had been in the habit of. He said, he had heard Professor Mott, more than 20 years ago, state that he had seen so much of ulceration and sloughing following laborious or tedious labors, that he had become satisfied that the forceps should be much earlier and oftener used than they were. Indeed, said Dr. C., by one early application of the forceps, the death of the child is often avoided, as well as severe inflammation of the soft parts. Indeed, he said, he now placed much more importance on the forceps than he had done during the early part of his professional career, finding that by their early use, women suffered less and got up better than when they were suffered to linger long after the head of the fœtus had been pressing against the perineum for hours. He

said he had within the past three years used the forceps ten times and that ten living children had been the result, nine of whom, he believed, were still living. He said he felt satisfied that the physicians in the west were too much afraid of the forceps while they but too often used cutting instruments.

Dr. GHOLSEN could not, from personal experience, say much. While in Paris, he had seen it used by Trousseau, with apparent effect, frequently. He (Dr. G.), however, was not prepared to argue that the contractions manifest were decidedly *propter hoc*, because they were *post hoc*. It seems to prove beneficial in the arrest of bronchial and intestinal, as well as uterine hemorrhage.

Dr. GOADBY stated that he could only refer to the opinion of those with whom he had conversed, or heard lecture upon the subject; and supposing it to be a question settled beyond doubt, that it possessed an action *specific* upon the uterine fibre, in causing it to contract, did not direct his attention particularly to it. From the statements of the most prominent men in London, he concluded that its character, as a uterine stimulant, was there, at least, established.

Dr. BONNER said that, formerly, when fully guided by the teachings of the lecture room, and the opinions of many of the Profession, that the article was undeniably an agent of specific action on the uterus, he was one of its warmest advocates, and placed as perfect reliance upon its action, when it was necessary to be used, as any other practitioner. When, however, in after experience, its proving, in many cases, a total failure; in others, the occasion of pains, torturing to the patient, without any increase of the expulsive force; again, the fact that pains have come on, as suddenly, and as *energetically*, where ergot has not been given; led him to doubt whether it *ever* produced the action ascribed. Be it, or uot, capable of producing this effect, its use he considered unnecessary; a little more time, with the use of morphine, or other sedative, to allay the irritability of the patient, would be found more satisfactory, and if assistance of any kind was necessary, the forceps were decidedly preferable, and more reliable. The danger pointed out in the essay, as liable to arise, both to the mother and child, should, in itself, be sufficient to deter us from its use, especially when other means, just as efficient, and less dangerous, can be employed.

Dr. TALIAFERRO expressed himself much pleased with the tenor of the paper, with which he fully coincided. The action of ergot was a subject to which he had paid much at-

tention, but was as yet unable to discover that it possessed any such virtue as that ascribed to it by medical writers, namely, of producing contractions of the uterus. Determining to give it a fair trial, he had followed the rules (widely differing, as they do,) laid down by the various authorities, time and again, both as regards the dose, and the circumstances under which it was to be administered. In order that he could rely upon its quality, he has gathered it from the field, at all seasons. In a case of uterine polypus, accompanied with hemorrhage, where an examination could not be obtained, it was administered for three days, successively, without any marked effect. Nor does it appear to produce any effect upon the gravid uterus of quadrupeds. In *two* cases, lately, he had used the wine of ergot, where the expulsive power was weak, with some apparent increase, but was inclined to regard the advantage gained as much owing to the general stimulation of the wine, as to the more doubtful specific remedy.

Dr. Buckner considered the subject as very important. As far as his experience went, in the use of the agent, he was compelled to view with distrust the properties ascribed to it. Notwithstanding Dr. Carroll's idea of rashness, arising from youth and inexperience, of which he deems the essay a result, (though we would consider three hundred cases as furnishing basis sufficiently adequate, to form an unprejudiced opinion of the benefit to be derived from the use of any article;) yet, we find the gentleman admitting, at the end of his long experience, that he uses the forceps more frequently, now, has fewer still births, and is less intimate with his former friend and favorite.

Dr. Wright: The paper which has just been read, contains many points worthy our serions consideration. It is well written; its compilations evince commendable research, and its facts and suggestions are such as to secure to its author the character of a thinking and successful practitioner.

Ergot has been a subject of discussion, in this city, more than once, and our views upon it have been fully expressed. Many of the questions we have presented—and which the advocates of the "morbid excrescence" should have well understood—have remained until this moment, unanswered. Our *opinions* have been severely criticised, not to say bitterly condemned. It has, indeed, been said, that no man entertaining these opinions, was competent to discharge the duties of a professor of obstetrics. Indeed! then let the ergotists sustain themselves like reasoning men, on this occasion.

After all this, you may be surprised, Mr. President, when we tell you that we have never expressed an *opinion* upon the parturient agency of ergot. As a teacher, we have presented the many and various opinions of authors, and lecturers, and practitioners, in a spirit of fairness and candor: after which, we have given the results of our own observation and experience. What more could students expect? How much less should they desire?

Our object, however, in these remarks, is not so much to defend ourself against the attacks of either ignorance or malice, as to express the hope, that gentlemen will not consider the statements which others have made for us, of sufficient importance to constitute the basis of their arguments, on this occasion.

At an early period in our practice, we commenced the use of ergot. For more than twenty-five years, we have carefully watched *for* its effects, among our own patients and those of our medical friends. Whether just gathered from the field, or taken from the jar in the shop—whether obtained before harvest, or after—whether the growth of a wet season, or dry—the results of ergot, in inducing the uterus to expel its contents, have been the same. In every case, there has been entire absence of specific action.

Still, for the first time in our life, we are willing to cast aside all observation, experience, even our own identity, that we may enjoy the invigorating breeze of professional popularity. We wish to know the difference between the feelings of a man engaged in the conscientious discharge of his duty, and one yielding a blind submission to routine authority.

And, now, we promise, for the time-being, at least, to believe all you may tell, or that has ever been told, about the goodness and greatness of ergot, provided you will help our unbelief, and, harmonize discrepancies. That you may not consider us troublesome, we will arrange a few contradictory statements for you.

A member of the profession, distinguished for his talents, attainments, cool judgment, and extensive experience, cautions his readers against the too powerful action of ergot, given in doses larger than two or three grains, occasionally repeated. Another, even more enthusiastic, both in writing and speaking, has expressed confidence in the powers of the agent, when given in doses of half an ounce, but in no quantity much less than this. The one condemned the small dose

as inefficient; the other, the large dose, as unnecessary and injurious. Both have their followers. Will my friend, over the way, reconcile the claims of these disputants?

Out of the question of quantity has grown that of safety. The adherents of small doses have never produced injury to mother or child, while they could name many lives sacrificed by the large doses. They esteem it a deadly poison. The advocates of large doses, enumerate cases in which it has been given to the extent of several ounces, without injury. We might admit that sawdust is capable of creating disturbance, admitted into the stomach in such large quantities: but we will ask, merely, why is the large dose so uniformly harmless in the hands of one, and so uniformly injurious in the hands of others?

Read with what an air of extravagance, monstrous extravagance, the action of ergot has been presented. Professor Meigs writes that it "as certainly excites spasm of the womb as nux vomica does of the other muscles of the body." A large number describe its action as evinced by an increase of the alternate contraction of the uterus, but do not claim for it *certainty* of effect. Why this difference in promptness, power, and kind of action?

The profession have reason to be proud that a Dewees once lived, and that a Meigs now lives. But how widely different were their experience and views, as to the subject before us. The language of the former, is: "When the ergot has been *successfully* administered, we find the uterine effort not only more quickly *repeated*, and more powerfully exerted, but these efforts are accompanied with *less suffering* than the same apparent exertions of this organ, when it is not urged to action by this drug." "Indeed it very frequently happens, that there is a great abatement of suffering." The latter writes: "Now, the influence of ergot, in a full dose, is such, that it excites in the fibres of the womb a contraction, or tonic spasm, which is called ergotism, and which, when once begun, does not cease until the child is expelled; or, until the organ has parted with all its irritability, and the spasm ceases from sheer want of power in it to contract."

"This contraction is so great, in some cases, as to split, or lacerate the womb, on the projecting parts of the child; or, what is more likely, to tear off the connection between the vagina and uterus, so as to force the child through the rent into the belly. Such a pain may last twenty minutes, or even half an hour, without a moment's suspension. Imagine the

feelings of a woman." Yes, gentlemen, and imagine your feelings, when you attempt to explain to us the cause of this immense difference in the action of the drug, administered by two such distinguished teachers; or, to satisfy us that the difference consists, rather in language than in fact.

Again: for we like to look on this picture and on that, when delineated by leading artists: be encouraged, ye who estimate ergot not less than the apple of your eye, when Dewees declares: "And farther, I am certain, that I do not use the forceps once, now, where I used them formerly ten times." "And hence, I presnme, that the secale cornutum now achieves deliveries that would have required the forceps, formerly."

Upon this point, Professor Meigs is at the negative end of the needle. If you will examine his chapter on ergot, you will find this paragraph:

"Upon the whole, I must say, that I feel far more comfortable, and free from apprehensions for the child and mother, when I deliver with the forceps, than in waiting the result of a dose of secale cornutum."

"*Waiting* the result," when it acts certainly, powerfully, and efficiently! Please add a link to these opinions, that they may appear as one unbroken chain.

A professor in one of our Western schools, the accuracy of whose judgment is generally acknowledged, informed us, that he had given ergot with apparent effect, the fœtus being alive, while it had never acted upon a uterus containing a dead fœtus. Others are just as confident that it acts as readily and as powerfully in the one case, as in the other.

One class administer ergot, exclusively to secure a speedy detachment and expulsion of the placenta. Another class, deny to it all power, after the fœtus has been expelled

Dewees, and others, have established precise rules for the administration of ergot. Among these rules, is one which enjoins upon us the danger of exciting uterine action before the complete dilatation of the os uteri. You, sir, are well acquainted with physicians who are in the habit of employing ergot to promote dilatation.

This very accommodating agent, prevents turning, in one case, and renders it more easy, in another.

It produces puerperal convulsions, and as promptly cures them.

If time were allowed us, we could proceed with our enumeration of discrepancies; but, when those already given, have been harmonized, we shall be content.

Dr. Dodge did not consider that much benefit could arise from the collection of so many authors, or in presenting the conflicting statements made by them, as any other agent in the materia medica might, in the same way, be made the subject of discussion, and the same objections be made to its use; the essayist's own experience, alone, going to furnish any matter worthy of discussion. He had no doubt the quality of the article was frequently the cause of failure, in the hands of some. The case referred to by Dr. Wright, is *but* one—has he never found other remedies to fail in his expectations? We do not claim for ergot, that it will certainly act in all cases, even when good; as, no doubt, idiosyncrasies are as liable to affect its action as any other medicinal agent.

Dr. Conner stated that he had entered the medical profession with full confidence in the efficacy of ergot, nor had he reason to change his views, or regret its use. Its failure, in many instances, results from its being given at too late a period. Even then, it may be used with advantage, by combining it with alcoholic stimulant. He would remark, in this connection, that he has found quinine to act more satisfactorily, in the treatment of intermittent fevers, when given in connection with stimulant.

He has found this agent sufficiently adequate to supply the place of instruments, except in mal positions, or deformity; and in his opinion, much less objectionable, and attended with less risk.

Dr. R. A. Johnson had used it in some six cases, without producing any expulsive force.

Dr. McIlvaine thought Dubois must have been misquoted, by some of the gentlemen, as he had never heard him recommend it, though he had attended his hospital for a long time, regularly.

Dr. Woodward remarked that the subject under discussion presented many interesting points for inquiry, which, however, in consideration of want of time, it would be impossible now to notice. Some points he would briefly consider. But before proceeding to their discussion, he would make a remark or two on the manner the debate had thus far been conducted. It appears to have been the policy of the opposition to present to their opponents an entirely *non committal* front, while they appear to expect from the advocates of the efficacy of ergot, a positive declaration of their faith, not only concerning the *effects*, but also of the modus operandi of the drug under consideration. This unfair mode of debate

has been almost universal with the speakers on the negative side of the question, not one of whom has ventured the assertion that secale cornutum has or has not the specific power attributed to it. Even the gentleman who may be considered the Apollo of the opposition, prides himself upon the fact, that though a teacher of obstetrics, and a member of the profession for at least 25 years, he has never expressed an opinion on the subject. It is true that he has arrayed all the authorities he had at his command on the subject, before his class, and taught them the contradictory opinions of others, still he has never ventured to express to them his own views, but left them, on this grave subject, without the least bias from *their own* teacher's experience, to build up for themselves theories, detrimental or otherwise, as the case might be, to the welfare of those intrusted to their care.

But the gentleman does not stand alone in that *non committal* position—every other speaker on his side of the question, has been contented with the declaration that he has not been able to *satisfy his mind* that *any* effect has been manifested by its exhibition; none, however, have ventured to declare that such an *effect* does not exist. The proof of its *positive* virtues, therefore, devolves upon the advocates of its use, and as one affirmative is worth many negatives, we accept the alternative, and fearlessly assert that when the os tincæ is fully dilated, the soft parts relaxed and yielding, and a good vertex presentation exists, the article may be safely given, and that when of good quality and properly administered, it has often and again, in my hands, produced powerful, prolonged and effectual uterine contractions of an expulsive character, and that without any injury to the mother or the child. Now, whether these results were merely *post hoc* or *propter hoc*, in the present unsettled state of the professional mind, it would scarcely be well for me to aver, though the frequency of the effect in my experience, has been quite sufficient to satisfy my mind, not only of the propriety of using the drug, but also of the absolute relation of causes and effects. A gentleman on the floor spoke of an occasional contraction of the uterus from its effects, but that in his vaginal examinations he was not able to discover any increase of propulsive power, thus demonstrating an increase in the contraction of the circular fibers of the uterus, without bringing into play the longitudinal fibers also; much irregular spasmodic action does sometimes occur, but my general experience has not led my mind to the same conclusions. Not

only has it been satisfactorily used by me, when in protracted labor, the flagging pains have almost ceased, but its utility, also, has been repeatedly observed in exciting contraction *and maintaining it, too*, where habitual secondary hemorrhage has been liable to occur, after the placental delivery, from the relaxed state of the uterine contractility. Two cases of the kind now present themselves to my mind, which from my relation to the partses, were not only instructive, but thrillingly interesting. In both instances, in repeated labors, after prompt expulsion of both fœtus and placentæ, a relaxed state of the uterus has been followed by hemorrhage so exhausting, that life was preserved with extreme difficulty. Indeed, I trembled for the consequence of the next labors. Both subjects were of lymphatic temperaments, and liable to rapid prostration of strength. At their succeeding parturitions, to prevent if possible the expected result, I administered in broken doses from one to two drachms of good ergot in infusion, as the head was about to pass the inferior strait, and the effect was, in both instances, most gratifying. The fœtus and placentæ followed each other in quick succession, the uterus contracted firmly, without the least subsequent relaxation, and of course no flooding ensued. Now, whether both these cases may be considered under the head of *post hoc* or *propter hoc*, I do not wish to aver, but so confident am I that a decided influence was exercised over the tonic action of the uterus, that I should feel it criminal not to use the same drug in like circumstances again.

In a word, if the article has not lost its aroma, if fresh and recently pulverised, if steeped and not boiled, so as to deprive it of its essential oil, upon which I suppose its efficacy depends—if given when the presentation and the soft parts are such as to justify its administration, I consider it one of the most valuable and available articles of the materia medica, liable, however, like all other powerful agents, to outrageous abuses.

Dr. Carroll, in reply to those who had followed his first remarks, said, that the debate had been protracted to so late an hour that he would not occupy the time of the society but a few moments longer. He insisted that the decision of the question must depend upon facts derived from experience, and that therefore young physic must submit to the proofs derived from the testimony of the medical men of both this country and the old world. Theorising inexperience could never, in such a matter, be relied on. He said, he had heard gentlemen

quote Gooch as an authority against the use of ergot. Now Gooch, said he, never used it; neither did he credit what had been said respecting its efficacy. His editor, Mr. Skinner, had also been cited as authority. He states, in a note, that he has used it and found no effect, but does not state that the article he used was one that its friends would have considered good, so that gentlemen have aided themselves but little from this source. It had been, said Dr. C., stated that Dr. Meigs acknowledged the power of this medicine in increasing uterine contractions, but that he had thought it dangerous in the highest degree to the life of the child. Now, Dr. C. said, he had but little faith in the correctness of this statement. He had often, very often, used the medicine, and had very seldom thought that it endangered the life of the child, but he believed that by shortening labor it not unfrequently saved the life. He had been asked, this evening, in what doses he had given the ergot. He would answer by stating, that when he wished to moderately accelerate the contractions of the uterus he gave five or ten grains every half hour or hour, until he found the labor affected by the medicine. On other occasions he gave 20 grains at a dose, and if he found no effect he repeated in an hour. He thought that there was no advantage in giving very large doses, because it would disturb the stomach and really injure, instead of benefitting, the patient. He said he had tried the ergot in probably 20 cases, where the mouth of the womb had been very slightly dilated, for the purpose of finding out what effect it had when thus given, and he had found that it had the effect of causing the dilatation to be more rapid, and that it acted, when given under these circumstances, especially on the neck of the womb, *and* did not seem to him to have any tendency to produce rupture of that organ.

Much had been said, by gentlemen, against the supposed power which it was said the ergot had in producing abortion. He wished to observe, on this point, that he believed the ergot had but little influence during the early months of pregnancy, in producing expulsion of the embryo. This, he thought, grew out of the fact, that during this period of gestation, the contractile fibres of the uterus were so little developed that but little effect could be produced by any medicine which alone had the power of acting on the muscular or contractile fibre. All well know that days elapse, even after the rupture of the membranes, before expulsion of the placenta would occur. He had often known a week to elapse before the uterus could be brought to act with sufficient force to cause

the expulsion. But, said he, when pregnancy has advanced to a later period, the matter was different; then, he thought, there was little doubt that the ergot would produce its specific effect. He said he would relate a case that would go to show the power that ergot possessed when given during the latter months of pregnancy: He had been at a distance on professional business, and on his return he was called to examine the nature of a case where it was thought that the fœtus was dead. The woman had arrived at the end of the eighth month. Upon examination, he said, he determined that the fœtus was dead, and immediately ruptured the membranes and then gave a dose of ergot. Within two hours the woman was delivered of a dead child. Now he had not then, nor has he since, any doubt but that the labor was brought on thus early by the influence of the ergot. It may be said, that the rupturing of the membranes was the cause of the labor; he, however, thinks that a much longer time than an hour would have elapsed before uterine contractions would have occurred, had the ergot not been given.

Dr. C. said, he would pursue the subject no further, however much he might regret that he had not had time to answer some of the gentlemen's questions, and reply to a few of their remarks.

Dr. Wright: Mr. President, allow me to detain the society five minutes with replies to a few of the remarks which have been made. And first in order, my friend on the right, (Dr. Dodge) claims my respects. He seems to think other medicines are just as uncertain as ergot. But the gentleman must remember that we have been talking about its so called certainties, and have been asking him to explain why it acted so strongly one way, and in the next moment so strongly the other way. Or in other words, how it knew and gratified the wishes and caprice of all those who bestowed upon it their flattery.

But are there as many different opinions in respect to the direct action of other medicines? If so, our knowledge has been very deficient. Does any one hesitate to believe that jalap acts as a cathartic, antimony as an emetic, or that nux vomica will excite muscular action?

The gentleman assures us that when ergot acts, it acts with as much certainty as any other medicine. We congratulate him, and return him our thanks for having made so important a discovery.

When first upon the floor we stated that answers directly

opposite had been given to the question, will ergot originate pain? And along side of those cases in which it has been said that ergot has promoted an expulsion of the ovum during the early months of pregnancy, we place those cases in which pain and hemorrhage were arrested, and abortion prevented. The gentleman on the other side of the house (Dr. Carroll) has heard of too many instances in which ergot arrested the pain and hemorrhage of threatened abortion, to doubt its efficacy in preserving the ovum to its full term. He attempts an explanation of this process by supposing the uterus to be destitute of muscular fibers during the eatly months of gestation. He is certainly a genius, but we think he will encounter some difficulty before he establishes this as an anitomical fact. Does he not know that the ovum has been expelled at any period after impregnation? Perhaps his genius will suggest that it has escaped by virtue of its own vitality and power.

The gentleman's illustration of the power of ergot, should be engraven upon imperishable material. He ruptured the membranes, gave ergot, and the ovum was expelled. Astonishing result! We would like to claim a little credit for the finger that ruptured the membranes. Will my friend administer antimony in wine and then claim that the latter is a prompt emetic? Is it the morphine, or the syrup in which it is dissolved that acts as a narcotic?

It seems the gentleman is one of the number who gives ergot to hasten a dilatation of the os tincæ. We have no right to complain of this, but some men have a very convenient way of arguing a question. If ergot excites contraction in the fibers of the neck as well as the body and fundus of the uterus, by what kind of action is the os dilated? When this is truly explained, the ergotists, as well as others, will then have learned something. The gentleman should be careful while engaged in debate not to contradict himself, for it bespeaks dullness of perception in his adversary. He was, at first, emphatic in the declaration, that ergot was in no way, nor in any dose injurious. And while the sentence was yet warm, he says, "I don't know much about ergot of late years, for I have found the forceps safer and better." Alas, how fallible is human judgment! How painfully submissive it is to individual desires.

Our worthy President, (Dr. Woodward,) started off with an immense bound, and declared that nobody denied to ergot powerful action. Well, we have only to say in reply, that

his active mind has been revolving in a very small circle. We have never attempted to teach the gentleman anything, on the contrary we have often desired to know how to accomplish some things as well as himself. But for once, we have the courage to say to him, that if he will throw off that veil which has so long obscured his vision, he shall be enlightened upon some points of professional interest.

The President is not only surprised that doctors would denounce opinions never expressed, but his amazement at the fact, that we had not expressed an opinion respecting the specific action of ergot in exciting uterine contraction, was equalled only by the vehemence of his manner. "What!" exclaims the President, "a teacher of obstetrics so long, and never having given an opinion of the powers of the great obstetric agent!"

The gentlemon sits quietly upon his chair, and his face bears an expression of calm, undoubted triumph. He is in a good situation to listen, although a bad one to be convinced.

We have always belonged to that class of doctors, who believe that a certain share of politeness belongs to every man, and who accord honesty of purpose where knavery is not apparent. The President tells us ergot is injurious given before certain changes have been effected in the uterus and soft passages. Dr. Carroll denies this, and claims that the drug is beneficial, even in producing the changes which the President deems so important. Can we give credit to the statements of both? Go from one end of the great chain of inconsistencies to the other and we ask, who shall be believed? Shall we say, you speak falsely, or you speak falsely! you are deluded, or you are deluded! You are blind, or you are the blind led by the blind! Our feelings have not allowed us to express our sentiments in any such way. We have bestowed due attention upon all, and then with as much meekness as possible, we have said, such is not our *experience*. A man might with great propriety tell you, sir, that he was childless, but would not even your equanimity be disturbed if you were told that you were the father of a monstrosity?

The President has given ergot and the pains of labor has increased. Yes, and many a man has not given ergot, and the pains of labor have terminated only with the expulsion of the ovum. Will the gentleman give no other proof than this, and still demand implicit belief in the power of ergot?

The President cites a case in which ergot was given in anticipation of hemorrhage, and as no hemorrhage occurred, he

infers that uterine *contraction* preceded. Admit that ergot will prevent or arrest uterine hemorrhage, must it be admitted necessarily, without any evidence of the fact, that the uterine fibres had undergone powerful contraction? Hemorrhages from the lungs, stomach, intestines, bladder, have been controlled by the omnipotent remedy, and yet, nothing has been said, in this connection, about muscular contraction. The acetate of lead, the acids, and other like remedies, have never obtained credit as direct muscular excitants; while, in the arrest of flooding, they are said to have been efficient, time and again. Why need it be claimed, except to sustain a particular theory, that ergot checks the hemorrhage of a threatened abortion, by exciting contraction of the uterine fibres? The only prominent evidence of its influence over muscular fires, is the cessation of pain; but this, truiy, will not be taken as evidence that its power in provoking spasm, is equal to that of nux vomica.

The gentleman has given us the details of a case, to prove his position. The uterus contracted, after the giving of ergot, hence, the ergot produced it; hence, the hemorrhage ceased. This may be a strong case, by itself, and it may be that it will look no more feeble and exhausted, by comparison. But here is a case to keep it company. A patient, the mother of a full dozen children, was subject to hemorrhage of an alarming character, soon after the escape of the fœtus; and the placenta was, in nearly every labor, retained, by irregular contraction of the uterus. The wine of ergot was given, in tablespoonful doses, every few minutes, commencing just before the birth of the child. Comparatively little hemorrhage followed, although there was a small amount of contractile pain. The hand was passed into the uterus, and the placenta withdrawn, without much increase of the flow, and without addition to ordinary after-pain. This case is selected, on account of its recent occurrence.

Perhaps, one of this character may be acceptable. Three or four days ago, a patient, two months pregnant, was seized with pain and hemorrage. Both continued several hours, increasing, gradually, in violence. Teaspoonful doses of the wine of ergot were given, every two hours. After three or four doses had been taken, the pain and bleeding ceased. The patient remained quietly in bed until this morning, when she jumped suddenly upon the floor and ran across ther oom, to save a child, whom she supposed to be in danger of falling down stairs. Pains returned, and in a few minutes the entire

ovum was discharged. Will these cases be taken as a triumphant vindication of the powers of ergot?

Time compels us, reluctantly to stop. The champions of ergot may cherish all they have made. Will they venture to ask the unprejudiced observer for an *opinion?*

Dr. Walker remarked, in reply: Dr. Carroll thinks that the young physician is less likely to have difficult cases committed to his care—that those who marry late in life, those who previously have had difficult labor, and even the *young lady*, thinks at the first confinement that she must have an aged and skilful physician to attend her.

I would ask Dr. C. if the occurrence of difficult labors are sufficiently premisable to admit the patient, or her friends, to be on the alert and obtain an aged man? As regards the second case, I must, I regret to say, beg to differ with our aged brother, having in my own practice at least three-fifths promiscuous cases, not a few of these advanced in life. But I would ask, what has this to do with ergot? He, very properly, in accordance with authority, discards its use in these cases. Will the gentleman, with all his experience and skill, explain to me why the agent, if it *should* be administered in any case, does not act as energetically in the hands of a young man as with the aged and skillful? Or will he, or our learned Vice President, who so strongly doubts our power of proper discrimination, tell us how ergot, or that peculiar *essential oil*, is able to decide when it is safe for mother and child, if it performed its peculiar action? I can not conceive why, if the article *is* specific, it will not act just as certainly when administered in one case as in another. The main ground taken as an excuse for its not acting, appears to rest upon its inferior quality. As I remarked before, I can not suppose those writers who have denied its action could possibly have, at all times, met with a bad article. I should think the experiments of Drs. Wright and Taliaferro sufficiently ample to destroy any such idea; they both having obtained it fresh from the field; gathered themselves in different seasons and from different soils; they have administered it in all forms and in all doses—tincture, infusion, powder, decoction, and the *essential oil*—without producing the slightest effect on the gravid uterus of the woman or quadruped. This, I hope, will satisfy our friend, Dr. Dodge.

Dr. C. thinks to overwhelm us with the statement of Chailly, who remarks that "no man at the present day denies its action." But I think the Dr. need go no farther than the *Cin-*

cinnati Medical Society to satisfy himself of M. Chailly's error; *men*, not bookmakers, but of practical and extended experience, who not only doubt but deny its alleged power.

I did not expect a case so unfavorable to his views generally, would be selected for special comment by Dr. Carroll, and from which *he*, too, might be convinced that danger and uncertainties attend the use of ergot, and that *time*, restraint of unnecessary interference, in the hands even of *young physic*, will accomplish more good than secale cornutum administered by the senior Esculapius, wrapt in his invulnerable toga of experience.

He tells us that in *some* cases he has found its use unfavorable. That a tonic contraction takes the place of the natural pains, and that this tonic contraction was not sufficiently powerful to bring down the head. What are we to understand from this? Is it that he administers it when pains natural and efficient (though perhaps tardy) are present, and that it not only exerts an influence unfavorable in itself, but prevents, by its continued unversal contraction, the natural pains from acting? Or is it that the natural pains having ceased, the ergot is incapable, without the assistance of the natural labor pains, to accomplish the desired object?

In either case we have something new to learn. If we have not been mistaken as regards the opinion of many medical authorities, as well as other advocates of ergot, that the distinguishing marks between the pains produced by ergot and the efforts of nature unassisted, were in the *continued non-intermittant contractions* due to the action of that agent. Nor did I before know that its advocates considered this action unfavorable, and only dependent upon rare idiosyncrasies.

Will the Doctor, then, be kind enough to point out the peculiar action of ergot, and when he would regard its action as favorable?

I can not, for a moment, admit what Dr. Woodward demands as most decided—that the increase of pains are necessarily *propter hoc* because they are *post hoc*. May not the feeble pains which still remain, soever slightly propelling forward the head, give such stimulus to the hitherto unstimulated nervous trunks, as to increase the contractile force? or the pains having ceased, sufficient time has elapsed to allow a recuperation of the natural powers to accomplish the labor of which ergot obtains the full credit.

But, to return to the Doctor's instructive case, which includes three accouchments in which ergot had been given, attended in *all* instances with the death of the child. In the

first, with ulceration and obliteration of the vagina; in the second, instruments were found necessary to accomplish delivery; and in the third, the pains, though weak (and requiring more patience and time than an aged practitioner could well submit to), were yet effective. He finds its administration attended with a total suspension of the natural pains, which, when the effect of the ergot subsides, returned; and if we might, with propriety, judge from the succeeding labor, would have been accomplished without such an interval of delay. In the fourth confinement he alters his mode of treatment—he keeps his friend pretty closely tied up, treats his offering of assistance with silent coolness, brings to his aid *young physic*, with injunctions to remain deaf to the voice of the syren. I will give the result in his own words: "On his return a living child was born; thus, after this patient had suffered, in delivery and abortion, *all that humanity could well endure*, she was at last blessed with a living child;" inferring, as rationally he might, that all this suffering was caused by the use of ergot. Nor does he relate this as a single case, having instanced several such results from its use. As regards the appearance of the child delivered after ergot has been given some hours, I answer, if the Doctor will refer to the description as quoted in the essay, he will find it somewhat different from what he supposes when he asks, who ever yet saw a child, after a tedious labor, not livid?

Dr. Woodward presented a case which I can give one in opposition to: the argument of *post hoc et propter hoc*. Hemorrhage had repeatedly occurred, in previous labors, after the birth of the child; in the last he admitted the ergot and hemorrhage did not follow. In my own experience hemorrhage has occurred *four* times, but in the last hemorrhage did not occur, though ergot was not administered.

Correspondence.

PARIS, December, 1953.

Continuation of the discussion on the Perchloride of Iron—Letters of Follin and Ricord on Syphilis—Puerperal Convulsions—Cholera, its Treatment and Mortality.—By JOHN A. MURPHY, M. D., *Professor Materia Medica, Miami Medical College, Cincinnati, O.*—(Concluded.)

The ligature has inconveniences and dangers; it exposes to inflammation, to gangrene, to consecutive hemorrhage, &c.; besides the manual operation is not without difficulty. With-

out doubt the method of anel applied to the elbow, is not dangerous, and I do not know any case of death resulting from its application, but this does not prevent us from desiring and seeking another operatory process. I conclude, after the known facts which are not very flattering, the new method is worth nothing, such as it is, for the cure of aneurisms; but we must hope that with time, it will be perfected, and that we will find a coagulating substance which will be used with better results than the ligature. I have omitted to say, that I have tried also to coagulate the blood by congelation, and that I had been led to make the attempt from considerations on the results obtained by local anesthesia, by means of refrigeration. But the experiment did not succeed, for as soon as the circulation, heat, and in a word, life, returned into the congealed part, the clot was re-dissolved.

M. Moreau: I ask the floor for a personal explanation. I have not, in any manner, pretended to give moral lessons to M. Velpeau. In morals, I am in the habit of observing precepts without troubling myself whether others follow them or not.

But touching the subject of discussion before the Academy, I protest against the parallel which M. Velpeau has wished to establish between the method of treating aneurisms by the perchloride of iron, and several other operations, regarded justly as conquests of surgery. There is no analogy between the circumstances in which they were produced and tried. When the ligature of the primitive carotid or internal illiacs was tried, it was for very grave cases; the patients were in very great danger, and we may conceive perfectly well that surgeons determined to perform a dangerous operation, since it was the only chance which remained for prolonging the lives of their patients. But is it the same in the present case? The lives of the patients were in no imminent peril, and you had methods proved by numerous cases of success, and by the general practice of all surgeons, and yet you prefer to these methods a process of yesterday, and having besides produced on animals formidable accidents, no parallel can be established between the action of surgeons in the two cases.

M. Velpeau has told us that this method was not yet decided or settled. Now he has made, in my opinion, a complete and final judgment of it. He has declared that the operation had occasioned, upon animals, formidable accidents; that it can be followed by inflammation, and that the inflammation seizing the aneurismal sac, would cause its opening, and all

the dangers which are the consequence; he believes that the clot produced by the perchloride is not assimilable; finally, he has brought forward an observation of M. Malgaigne, in which terrible accidents manifested themselves. What more does he wish? Does he wish still to increase the list of the victims inscribed in necrology, by the new method? It seems to me that these trials are more than sufficient to settle the question. I do not retract, then, even after the speech of M. Velpeau, what I advanced at the last meeting, and I persist in saying that the new method ought to be proscribed forever in the practice of surgery.

One word yet to M. Velpeau, in terminating. Our colleague has told us that he has tried to coagulate the blood by congealing it. But there is nothing new in that. He has but applied a process discovered before him by Guerin, and employed for the purpose of prolonging the life of his patients.

M. Velpeau: Our honorable colleague, M. Moreau, confounds the congelation with the coagulation of the blood. It was the congelation of the part which Guerin had in view when he applied this process, and not the coagulation of the blood.

M. Leblanc: The honorable academician began by stating that all the orators who have spoken on this question, agreed on the necessity of making numerous experiments upon animals before undertaking any more on man. For his own account, he is much more disposed to proceed in this way, as he preserved a hope for the future of the new method. All discoveries have had their dark days, and I do not believe it just to give an unfavorable opinion on this one, after the small number of facts which exist in science. He then gave the history of the question. He brought up the experiments of M. Pravaz upon animals, and the results which followed them; the manner in which this question was brought before the Institute by a communication made by M. Rayer, in the name of M. Lallemand. Then after a just tribute to the paper of M. Malgaigne, he passed to the relation of the experiments which he had undertaken, in connection with M. Debont, on animals, and some of which had been seen by M. Professor Denon Villiers. These experiments had for their principal aim the establishment of the innocuity of perchloride of iron. Now, this innocuity has appeared almost complete, and, excepting a little fever and anorexia, no accident has been noted on the horses experimented on. The

dose of the perchloride was injected sufficiently large without producing any unhappy results. M. Leblanc insisted on the necessity of maintaining for a sufficient length of time, the ligature or the compression above and below the point where the injection is made, if we wish to obtain a firm and adherent clot. Without this precaution, the clot detaches itself and is carried into the circulation. He explains in this manner the rapid disappearance of the clot noted in some experiments, and which have been falsely attributed, he believed, to absorption. M. Leblanc desired with all his heart, that it was possible to realize the desire expressed by his honorable colleagues, MM. Gerdy and Moreau, to see the perchloride of iron tried, upon animals, in cases of aneurisms. Unhappily that is not possible, since domestic animals are not subject to this disease. Besides, it is difficult to cause artificial aneurisms on beasts. However, he proposed to make some experiments on this point of trying to produce, on animals, aneurisms in the regions that this disease occupies by preference in man. He will try also the action of perchloride of iron in cases of varices, a disease which we meet with sometimes in domestic animals. As to the irritant and caustic properties attributed to the perchloride, we are, in this respect, in a complete error. A solution of the salt of iron may very well become irritant and caustic, but it is when it is old, for then there is formed a certain quantity of perchloric acid. For the rest, it is easy to neutralize this action by adding to the solution, before using it, a little hydrate of peroxide of iron, which destroys the acid.

Before terminating, M. Leblanc read a letter addressed to M. Debont by M. Villette, surgeon of Hotel-Dieu, of Lyons. This interesting letter contains the relation of a case of aneurism of the bend of the elbow, treated with the most complete success by the employment of the perchloride of iron. The operation was performed by M. Villette, the 21st July of this year, in presence of MM. Petriquin, Desgranges, Bouchacourt, &c., his colleagues. The solution of perchloride had been prepared by M. Burin-Dubuisson. It was at 30°. He used a syringe of M. Chariere, made to inject into the aneurismal sac, thirteen drops of perchloride of iron. The operation was followed by full success; the pulsations diminished, the tumor, which was as large as a large walnut, contracted little by little, has taken successively the volume of a hazelnut, a large bean, and a small pea. Briefly, the patient went out perfectly cured; and two months after, the cure still continued.

M. Villette attributes the cases of failure, described by surgeons who have employed the method of Pravaz, to the bad manner of performing the operation. The honorable surgeon of Hotel-Dieu of Lyons, recommends the following precautions:

1st. To employ the perchloride of iron at 30°, according to the formula of M. Burin-Dubuisson.

2d. To inject ten to thirteen drops of liquid for a centiletre of blood; experience having demonstrated that it was the dose most convenient to produce good effects and prevent accidents.

3d. To use a good injection. The opening made into the aneurismal tumor ought to be extremely small, so that the liquid may not escape into the surrounding cellular tissue, and may not produce inflammatory accidents. The point of the canula should be very fine. The syringe of M. Chariere seems to satisfy all demands.

4th. To maintain compression during a convenient time, for the solidification of the clot.

Academy of Medicine, Nov. 29th, 1853.

After the reading of the minutes, and the communications sent in since the last meeting, the discussion of perchloride of iron was resumed by M. Roux.

In the discussion, said M. Roux, which has engaged the attention of the academy for some time, there is one side of the question which has been completely neglected. It has seemed to me that surgery was destitute of means against aneurisms, and that the perchloride was a remedy against which surgery could not object. When I took the floor for the first time in this discussion, I confined myself to reproaching M. Malgaigne for not having waited until the method should be tried sufficiently. I am still of the same opinion. In condemning M. Malgaigne I have also blamed M. Gerdy and Moreau, who have shown themselves too severely against rational experiments in surgery. I feel it necessary to present some considerations again, which I have already done at a previous meeting, and to add some reflections. The method which is attempted to be introduced into surgical practice, has not the importance which has been given to it, and can not be placed parallel with the means which are already in the possession of surgery. M. Velpeau has been right eight times, in saying that it was not a thing quite new, but an extension of procedures already known; such, for example, as the intro-

duction of needles, the injection of alcohol by Leroy (d'Etiolles), the acupuncture, and the congelation. Ice, employed for to determine congelation, is not a remedy as indifferent as it can be believed. In the course of my practice, I have sometimes had recourse, with success, to refrigerant applications. In a case of aneurism of the aorta, I have been able to determine a revulsion, followed by a remarkable amelioration, by the application of ice. This remedy has, above all, been recommended by Guerin, of Bordeaux. In Paris, in the hands of M. Deschamps, it has not given us results as satisfactory as in those of the practitioner of Bordeaux. It is this which has made M. Deschamps say, that the water of the Seine has not the same action as that of the Garonne. But I have seen, myself, in the wards of the hospital of St. Andre, of Bordeaux, a very fine result obtained by M. Guerin, from the application of the refrigerant method to aneurisms. The case was one of an aneurism of the primitive carotid or subclavian. I was not able to follow the successive effects of the method, but I know that there was a considerable reduction in the volume of the tumor. I have been astonished that M. Velpeau has not remarked to the Academy that compression ought to be connected with the general method of the coagulation of the blood. This is, however, a thing which we owe to the Surgery of Lyon, which seems to be in possession of that which relates to the Therapeutics of Surgery. It is now a long time since M. Viricil, of Lyon, found, in exercising momentary pressure on an artery, that he formed a clot, so that the disease was temporarily in a way to be cured. I will ask now the Academy to follow me in a different manner from that of M. Velpeau, relative to the method of Hunter, which presents results preferable to those of the perchloride of iron. I know very well that Anel had before Hunter the idea of ligating the artery above the tumor of aneurisms; but it was Hunter who made the application to a popliteal aneurism. This is then a considerable fact in science and makes one say that Hunter was the inventor of the application, and the author of the extraordinary popularity given to the new method of ligature in aneurisms. I also persist in calling it *the method of Hunter*. The method of Pravaz has been considered in a too absolute a manner, as if there was no other means for the cure of aneurisms; not one word of comparison has been made between the perchloride of iron and the usual method—the ligature. I deplore much more this forgetfulness as I am

well convinced that Surgery has more to do still with the ancient method than with that of Pravaz. Let us suppose that the perchloride of iron may have all the advantages which have been accorded to it, that we may have made choice of a hemoplastic, better still than the perchloride of iron, for we are yet to experiment. Suppose that we render a good account of the modifications which the clot may submit to, that we may have well established in a precise manner the rules to follow, the precautions to take for to escape, for example, that the perchloride does not pass the artery, when we inject it into an artery or a neighboring vein, this would not be, in spite of all that, but after a great number of observations that we could accord the preference to the perchloride of iron over the ligature. Surgeons made great efforts to introduce the method of the ligature to the detriment of the old method. We remember still the struggles which it was necessary to sustain, the courage even which it was necessary to show in order for the triumph of Hunter, whose application to day has become still more general. I am happy to think that perhaps I have contributed a little to this result. I suppose, however, that the injections of perchloride gives better results. There is, for example, the success obtained by M. Vallette, this incontestable success, which has happened in a case where was violated all the precepts laid down for the employment of the solution of the perchloride, and which adds to the indecision which we feel in forming an opinion of the method.

I cannot speak for the future; but in case the new method shall come to offer later some results which may be compared to those of the old one, I will make known the results at which I have arrived by the employment of the ligature. How can you ask me to abandon the ligature after having arrived at the results I am going to cite. It is fifteen years since I have adopted for all the varices of the inferior members the proceeding which I practice to day, and which I have seen put into practice by M. Ribari, of Turin. In a journey which I made in Italy I learned of that distinguished man that he practiced the ligature of varicose veins with a success sufficiently constant and happy. Some accidents, some unhappy results had happened to him, but they were a very small number. On my return to France I made a trial of his operation. Since then I have employed it fifty or sixty times, and more even, without any inconvenience. At this moment I have at Hotel-Dieu, four patients on whom I

have tied the internal saphena vein, and with whom I have obtained a perfect cure. As to the others the varices had entirely disappeared at the time of their leaving the hospital, and as I have not seen the majority of them, I must consider them as cured.

I will never consent to inject perchloride of iron into varices. The customary result of the ligature is not less advantageous in false consecutive, or spontaneous aneurisms. If ever we can collect a considerable number of facts relative to the employment of injections of perchloride of iron, if these experiments are followed by sufficient success that they may be continued, we will see if this method can be compared to the ligature. At this moment, while I speak, I have practiced 84 times the ligature of the great arteries, crural, brachial, popliteal; 66 times the operation has been practiced by the method which I am determined to call the method of Hunter; 10 times I have applied the ligature for false consecutive aneurism. The false consecutive aneurisms presented themselves almost always in the arm; I have operated on two by opening the sac, and the others by the method of Hunter; all have been perfectly cured. Must I then consent to practice the method of Pravaz in the aneurisms of the bend of the elbow? I have spoken of spontaneous aneurisms: I have operated 33 times, of which 23 were popliteal; in the greatest number of cases, the result has been satisfactory. We see then what accidents and what results the method of Pravaz may lead to. The experiment which has been tried in Surgery is assuredly one of the most grave things, the most serious, if we examine what has taken place until the present time. Why then drop the old method which gives such fine results? With the old method we have to fear gangrene, hæmorrhages, and inflammatory accidents. Well, have we not to fear all these with the method of Pravaz? Have we realized, for example, the fact in the case of M. Malgaigne? It is true at this time that we do not arrest the current of the blood in the vessel when we practice the injection. With the ligature I have only seen gangrene in a limb three times, and in one case the operation was practiced in very bad conditions; twice I have seen inflammatory accidents develope themselves after the method of Hunter had been practiced; five times I have seen secondary hæmorrhages supervene. In good Surgery it is much better to follow a method which is good and which has been proved by long use than to run the chances of a

new and hazardous one. There are some persons who are tormented by the desire to engage in new things, but it is not necessary to change a method for the pleasure of change."

The above is really only a synopsis of the speech of M. Roux. He commenced speaking in his seat, but the whole house cried out for him to take the tribune, as he could not be heard in his place. He continued to speak for almost an hour. In his speech he entered into the history of the practice and appreciation of the ligature for the cure of aneurisms. M. Velpeau had said that the credit belonged to Anel, a Frenchman, while Roux denied it, and said repeatedly that Hunter was the author. The scene between Roux and Velpeau was quite exciting—Velpeau said emphatically that Anel had first applied the ligature, when Roux immediately denied. The universal respect and esteem in which Roux is held, forbade Velpeau to contradict him, but he looked a contradiction. It's pleasant to hear all the members call Roux *our master*, whenever they speak of him.

After M. Roux had finished, M. Velpeau immediately demanded the floor, and ascending the tribune said: I will say at first to the Academy, that it is feeling a little pain from its last decision. Tuesday last I asked the floor for a little explanation; I asked then for half a minute, to-day I will have to ask for quarter of an hour.

That which our honorable master, M. Roux, has just said has enlarged the debate. I would wish to remark that it was a question simply of the discussion of the value of the new method; to-day we are to discuss the value of different methods, even although they may be known now. Another one of our colleagues has viewed the question in a moral point of view; he does not wish to blame any one, since he blames everybody. I leave to everybody the trouble of defending themselves. I come to the perchloride itself. Unhappily for me, M. Malgaigne was not present at the meeting when I spoke. M. Malgaigne has believed that I blamed him, and that I had doubted some of his facts. I have not had the least thought of doubting the fact which he has reported. M. Malgaigne has believed still that I had said that the method could be good for the aneurism of the root of the members. I have not said that. I have said that this question was not matured—that it was not decided—that the ligature was insufficient for the aneurisms of the root of the members, and that it was to be desired that we could find a method which could be applied to the treatment of these

aneurisms. I said that we were not ready to judge definitely this question of perchloride of iron. I do not believe that the accidents are inherent to the method even. The gangrene of the fore-arm which Mr. Malgaigne reported does not seem to me to be the consequence of the injection of the perchloride; there is an unknown cause. There was some inflammatory accidents, in truth, we could fear them a great deal. Pravaz had announced the perchloride as something very irritating. I was forced to employ it in one case. I introduced into the bottom of a vast wound, some boulettes of charpie saturated with perchloride of iron, without any inflammatory accident. There is in this question an unfortunate thing, it is the interference of M. Dubuisson. It is proper that a pharmacien should furnish us the means of which we have need, but he should never come to mix himself in our academic discussions.

Behold a remedy which coagulates the blood in the vessels; in experimenting, this liquid does not act in an irritating manner, then there is nothing to fear from inflammatory accidents. This liquid coagulates, that is certain. If in coagulating the blood in the vessels, we can arrest the course of the blood, there is reason to experiment with the perchloride of iron on animals, but not on men. Another reason is, that there are some facts.

M. Malgaigne, a judicious mind, however, rejects these facts; I believe that this is then a fault. I do not know well the worth of M. Valletto, but I know he is a distinguished man—he is a surgeon of a great hospital by concours.

He has injected, you say, too large a dose of perchloride, but experience has not yet given us the quantity of liquid to inject; we do not know if M. Vallette has not done better than any one before him. We have not the right to reject the fact of M. Vallette, and it would be a bad philosophy to proscribe a method which presents itself in the conditions where it is to-day, for if it is not applicable to aneurisms, it can be employed in other diseases to advantage. M. Moissenet has obtained excellent effects from the perchloride of iron in uterine hemorrhages. Perhaps great advantages will be produced from it in arresting hemorrhage in certain wounds. Everybody knows that since some centuries a sure hemostatic has been sought. For varices the perchloride has been employed at Lyons and Paris, M. Geraldes has succeeded in injecting considerable quantities without accidents, in obliterating the veins, and producing a cure. I do not wish to be

considered a partisan of this treatment for varices; they can not be cured by this remedy more than by any other remedy. I have applied upon two hundred and fifty individuals, the operation which M. Roux went to Italy to find out, and which he could as easily have found in a certain book upon the shelves of his library. I have only seen an accident once. I have practiced also, for the treatment of varices, small seatons, without accident. I have tied the veins by isolating them, without seeing them cured. I have succeeded. But it is necessary to understand the operation. I have obliterated the vein, but it has appeared in another part. After good reflection, it is impossible to cure varices; the veins have not the small ramifications which the arteries have, they anastomose in myriads. My patients returned at the end of a year, seamed with old cicatrices, and having again large varicose veins. I have often seen a patient on whom I had excised three inches and a half of the large saphena vein, return at the end of ten years, to my service, at la Charite; other veins had become very large already in the same patient. Our colleagues who employ the percholride of iron for varices, loose their time, the explanations which I have given, show the inconveniences of this remedy.

There is a point on which I wish to give an opinion to our young colleagues. It is that the clot has a tendency to adhere. I have seen this in the large veins of horses, in which M. Leblanc had made some injections of perchloride of iron; there is reason to believe that this clot may become organized in remaining adherent to the vein or can be reabsorbed, if it adheres, a canal more or less large, can be formed below it. But here is a difficulty, whether we inject the perchloride or some other liquid. It is not the same thing to inject an artery, or a healthy vein, or more an aneurismal pouch. Here you have a pouch which is not more clearly organized, or you have some concrete layers not organized. Another difficulty is that the orifice of the artery at the bottom of the aneurism is not always open.

In a case of aneurism at the bend of the elbow, upon the cadavre, we could not find the hole in the ulnar artery, which was separated from the aneurismal layers by a cord of a tortuous track, of three quarters of an inch. Should we succeed in obliterating the sac, we are not sure that a new pouch will not be formed by the side of the old one. This will be still another cause of failure.

When the canula is carried into the aneurismal pouch, we

are not sure that we are opposite the end of the artery. This is still a new idea, which I submit to experimenters. But I do not wish to censure those who try the coagulating injections. I believe that science and practice will gain by it. Some words upon refrigeration. It is not with the same end in view that I have acted as M. Guerin. He wished to bring about, by refrigeration, the narrowing of the artery. Knowing that with a mixture of ice and salt, the tissues can be solidified, I proposed to congeal the blood in aneurismal arteries. This is different from refrigeration. I asked myself, if in coagulating the blood by means of cold, the coagulum would not continue; unhappily it is not verified.

After M. Velpeau had finished, M. Leblanc presented to the Academy, the caro id artery of a dog, into which he had injected perchloride of iron: compression was established above and below, a clot was formed which was absorbed without accident. No clot remains in the artery to-day, which is entirely free. The clot has evidently passed into the circulation, M. Leblanc believes.

M. Leblanc communicated also to the Academy some experiments which he had made in concert with M. Dubout, on the subject of the action of perchloride of iron, injected into vessels. The new researches which M. Leblanc has made, leads him to conclude that there is reason to hope in the future, for the method of treatment of certain aneurisms by the injections of the solution of perchloride of iron suitably made.

There is reason to believe, according to him, that we will succed, in time more or less distant, to make a rational operatory process, not in a mathematical manner, for this can not be done in surgury, above all in the question of perchloride of iron, where the modifications of lesions are so common, but in a manner that a skillful and intelligent hand may be usefully guided.

We may conclude, 1st, We ought not to inject the perchloride only when the sac contains liquid blood; 2d, that the solution of 30° and above, as neuter as possible, must only be injected; 3d, that we should avoid making several punctures close together; 4th, that in order to prevent the infiltration into the sides of the tumor of the solution remaining at the end of the canula, it is necessary before withdrawing the instrument, to draw the solution into the canula, by making a turn backward of the piston of the syringe; 5th, that it is necessary to make compression suffi-

ciently prolonged on the trac of the diseased vessel; 6th, that it is very probable that a very small quantity of the solution very dilute, will suffice to provoke the coagulation of the blood maintained in stagnation.

I do not think it worth while to send you the speeches of several others, as they are unimportant, and several of them containing nothing but repetitions.

Reviews and Notices.

The Diseases of the Heart and Aorta. By William Stokes, Regius Professor of Physic in the Dublin University, and author of the "Treatment and Diagnosis of Diseases of the Chest," etc. Philadelphia: Lindsay & Blakiston. 1854.

This is a work of more than ordinary interest, both on account of the importance of the subject and the character of the author. Dr. Stokes justly enjoys a high reputation as an investigator of diseases involving the heart and lungs, and few writers have done more to improve the diagnosis and treatment of these too often obscure affections. His treatise on the affections of the respiratory organs, is one of great merit; and the work before us is not of less value than the former, and will, in the opinion of many, exceed it in many respects. It is to be observed, however, in the writings of Dr. Stokes, generally, that neither his style nor mode of discussing subjects, adapts his words to the mere student, or even the junior portion of the profession; but, on the contrary, we have often felt while following his somewhat discursive, but always profouud observations, that the evident want of system, the labored investigation of special points, and too much neglect of others, together with his minute discriminations, demand a somewhat profound medical scholar for his reader. We feel quite sure, indeed, that most persons not well versed in the particular subjects embraced in his works, would finish

their perusal, somewhat disappointed, and perhaps not much benefitted. Still, Dr. Stokes is a very profound medical philosopher, and those who will follow him with sufficient care, or in an understanding spirit, can not fail to be largely interested. In the treatise before us, we are of opinion that the subjects are treated with more clearless and completeness than the work on the lungs, and that it will prove more satisfactory to all classes of readers.

The author informs us that he has sought to give this work an essentially practical character, and that it is designed mainly to embody the results of his own experience and observations. It is not, however presented as a complete treatise on cardiac pathology, nor the physical diagnosis of these affections, but it embraces rather, the practical application of these elementary principles. It is on this account, therefore, that the work is adapted only to the advanced student of cardiac pathology and diagnosis, or rather the practitioner who has already learned the elements of the subject.

On the subject of *diagnosis*, the author is evidently commendably cautious, and while he does not discard or even disparage the use of physical signs, he expresses the belief, that in this respect, "too great positiveness marks the statements in our standard works, and that the difficulties of special diagnosis are still infinitely greater than might be led to believe." The author properly dwells, also, on the value of vital symptoms, the modification of physical signs by complication of disease, and the influence of a morbid condition of other organs on that which is the principal seat of disease. These hints are of the highest practical importance, and are such as every careful observer and enlightened practitioner will soon learn to recognise and duly appreciate. Indeed, physical signs alone are not sufficient in all cases to reveal the nature of cardiac disease, but we require, in addition, the aid of vital symptoms, and a knowledge of the effects of a deranged circulation on the lungs, brain, liver, kidneys, and the digestive functions, and every experienced practitioner can readily call so mind examples in which but little physical

change, in relation to extent, special character of sounds, or the substitution of new phenomena, could be detected, and yet the *vital* symptoms pointed unequivocally to extensive and profound leisons. The trutn is, that while the physical signs must ever constitute the basis of diagnosis in cardiac diseases, still, the vital phenomena must be carefully examined and properly understood, and not unfrequently beeome the key to a correct comprehension of the cause. The author is quite right, therefore, in condemning a too rigid adherence to mere physical signs.

The work before us embraces the following subjects: Inflammation of the heart and its membranes, diseases of the valves, diseases of the muscular structure, (including dilatation, faulty degeneration and hypertrophy,) treatment of organic diseases, condition of the heart in typhus, displacement of the heart, rupture, deranged action, (including angina pectoris,) aneurism of the thoracic and abdominal aorta, and table of cases.

These subjects are treated in a full and satisfactory manner, introducing the most prominent facts known in relation to these affections. We have no hesitation in saying that, as a practical work on diseases of the heart, Dr. Stokes' treatise will rank with the best that have hitherto been published.

Homœopathy Fairly Represented. A Reply to Professor Simpson's "Homœopathy" Misrepresented. By Wm Henderson, M. D., Professor of General Pathology in the University of Edinburgh. Philadelphia: Lindsay & Blakiston. 1854. pp. 302.

The most notable fact connected with the above work, is that it is the offspring of a Professor in a regular and highly respectable school of medicine. It is well known that Dr. Henderson, the Professor of Pathology in the University of Edinburgh, has been for a number of years, a professed desciple of the renowned Hahnemann, and although he has continued to hold his place in the University, in defiance of the express wishes of his colleagues, he hase mbraced every opopportunity to cast reproach on the science and the school

which supports him, and to advance the interests of a miserable and deceptive mysticism. This circumstance alone, should brand Dr. Henderson with everlasting disgrace, for a man who can retain a high position in direct violation of the wishes of his colleagues, simply because they have not the power to expel him, and, at the same time, daily abuses and misrepresents the very school which his professional duties compel him to sustain—*such* a man is mean, contemptible and dishonest.

So far as the book itself is concerned, we have only to remark, that it contains the usual sophistry, invention and falsehoods which abound in all homœopathic productions, and deserves no more countenance, nor is it a whit more philosopical, than the meanest partizan pamphlet. It is a formal, but *ineffectual* reply to the able and conclusive work recently issued by his colleague, Dr. Simpson, whose merciless exposure of Dr. Henderson's conversion to homœopathy has doubtless greatly excited the animosity of the latter gentleman. We will remind our readers of the facts. Dr. Simpson stated, sometime ago, that a homœopathic disciple made him a present of a box of medicines, consisting of numerous vials containing the infiinitisimal globules. The medicine being of no use, was placed on a center-table, and the children, by way of amusement, emptied the contents of all the bottles in one common heap, and it was intimately mixed. From this miscellaneous mixture, the vials were again indiscriminately re-filled, so that any one of them would probably contain half a score of different sorts of globules. In the mean time, Dr. Henderson, who had an itching to try the effects of homœopathic medicine, asked the privilege of using the preparations in said box. The request was readily granted, but the fact that the medicines had been indiscriminately mixed was not stated. With this box of mixed medicines, the redoubtable Dr. Henderson commenced operations, and after the lapse of a few months, returned to Dr. Simpson, a convert to homœopathy, as the result of the miraculous cures performed by the infinitesimal compounds!

And this, be it remembered, is the person who comes forward as the defender, *par excellence*, of the homœopathic faith, and claims the confidence of the world and the profession!

We can only say to our readers, that the work is not worth the trouble of reading, and we regret that the press of Messrs. Lindsay & Blakiston has been soiled by its pvblication.

A Treatise on Venereal Diseases. By A. VIDAL, (de Cassis,) Surgeon of the Venereal Hospital of Paris, author of the "Taite de Pathologie, et de Medicine Operatoire," etc., etc., *with colored plates.* Translated and edited by GEORGE BLACKMAN, M. D., Fellow of the Royal Medical and Chirurgical Society of London, formerly one of the physicians to the Eastern and Northern Dispensaries, New York. New York: Samuel S. & William Wood, 261 Pearl street. 1854.

To the *Hospital du Midi*, the great venereal hospital of Paris, are attached Messrs. Vidal and Ricord; but while they have been laboring in the same field and making observations on similar classes of patients, their doctrines have been framed with many opposing points. The works of Ricord and his teachings, have made a deep impression on the minds of the profession, yet the doctrines of Vidal are no less entitled to our confidence, coming as they do from a man of equal learning, talent and experience, though much more cautious in his theories, and more modest in his pretentions. Every practitioner of medicine should have in his library a standard treatise on venereal diseases, for venereal taint may insinuate itself into the best of society, and blast the hope and happiness of the family circle, if the family physicial is not able to recognise its early features and to promptly arrest its progress.

A better work than this of M. Vidal's is not extant. The engravings are well executed, and colored to life—the translation is accurate, and the explanatory notes and additions by the American editor, fit it for use in this meridian, as well as in the great metropolis of France.

For sale by Moore & Anderson.

Lectures on the Diseases of Infancy and Childhood. By Charles West, M. D., Fellow of the Royal College of Physicians; Physician to the Hospital for Sick Children; Physician-Accoucheur to, and Lecturer on Midwifery, at St. Bartholomew's Hospital. Second American, from the second and enlarged London edition. *Quæ Prosunt Omnibus.* Philadelphia: Blanchard & Lea. 1853.

Few men have enjoyed better opportunities of studying the diseases of children than Dr. West. The great hospital for sick children in London, where he has been for many years the prescribing physician, affords a field for observation that is rarely enjoyed, even in the great cities of Europe. The lectures composing this book, were drawn from the management and experience in the treatment of 14,000 sick children, during a period of nine years. This fact is alone sufficient to entitle the work to our most respectful consideration and perusal; but when we turn to its pages and observe how accurately are noticed the symptoms of the child's disease, the facility and clearness of his tracings of the symptoms to their cause, the correctness of his diagnosis, and the soundness of his treatment, we are bound to acknowledge that *this* is *the* work that all practitioners should refer to for instruction in the treatment of diseases incident to juvenile life.

In the second lecture, "on the diseases of the brain and nervous system," we find the following statement:

It appears from the reports of the Registrar-General, that 16,258 out of 91,225 who died in the metropolis during the years 1842 and 1845, of ascertained causes, were destroyed by the various diseases of the nervous system. But 9,350 of these 16,258 deaths took place during the first five years of existence; or in other words, 57 per cent. of the fatal disorders of the nervous system occurred within that period.* Even after making a very large allowance for the possible errors of statistical data, this predominance of the diseases of the nervous system in early life is far too remarkable to be

* These numbers, which yield results differing but very little from those given in the former edition, are deduced from the returns given in the Fifth and Eighth Reports. The returns for 1846, which are also given in the Eighth Report, are not included, since, owing to the epidemic prevalence of diarrhœa in the autmn of 1846, they would not yield average results.

overlooked; though some persons, not being able to account for the fact, have affected to doubt its reality.

The fact is one which can not be gainsaid; and though we can not pretend thoroughly to account for it, yet *two considerations may help in some degree to explain it.*

The *first* is derived from our knowledge of the circumstance, that in an orgon whose development is rapidly advancing, many diseased processes also, if once set up will go on with proportionate activity. There is no organ in the body, with the exception of the pregnant womb, which undergoes such rapid development as the brain in early childhood. It doubles its weight during the first two years of life, and reaches nearly, if not quite, its maximum at the end of the seventh year. This same active state of the nutrivie or vegetative process in the brain of the child renders the organ liable to have disease set up in it by causes which would produce little or no injurious effect on the brain of the adult.

In the *second* place, the brain in infancy is much more exposed to disorder than that of the adult, owing to the far wider variations of which the cerebral circulation is susceptible in early life than subsequently. Nor is the cause of this difficult to discover. Tne cranium of the adult is a complete bony case, and the firm substance of the brain affords a comparatively unyielding support to the vessels by which it is nourished. It has been proved, indeed, by Dr. Burrows† that the quantity of blood which these vessels contain is not always the same, as some have erroneously supposed; still is variations must needs be circumscribed within far narrower limits than in the child, whose cranium, with its membranous fontanelles and unossified sutures, opposes no such obstacle to the admission of an increased quantity of blood, while the soft brain keeps up a much slighter counter-pressure on the vessels than is exerted by the comparatively firm parenchyma of the organ in the adult. If the circulation in the child be disturbed, whether from difficulty in the venous blood, as during a paroxysm of hooping-cough or from increased arterial action, as at the onset of a fever, or during the acute in-

† In his Lumleian Lectures, published in the Medical Gazette, April 28, and May 6, 1843, and subsequently in his work on Disorders of the Cerebral Circulation, etc, 8vo. Lond., 1846. The general accuracy of Dr. Burrowr' conclusions, though called in question by the late Dr. John Reid, in the London and Edinburgh Monthly Journal for August, 1846; and more recently by Dr. Hamernjk, of Prague, in the Viertejahrschrift, fur die praktische Heilkunde, vol. xvii. p. 38 seems to be placed beyond doubt by the very careful experiments of Dr. Berlin, published in the Nederlandsche Lancent, Feb. 1850; and in Schmidt's Jahrbucher for 1851, No. 1, p. 14—15.

flammation of some important organ, the brain becomes congested, and convulsions often announce the severity of the consequent disturbance of its functions. The same causes, too, which expose the brain to be overfilled with blood, render it possible for it to be drained of its blood more completely than in the adult. This fact, which you should always bear in mind when treating the diseases of infants, is one reason why excessive depletion induces a far more serious train of symptoms in young children than succeed to it in the grown person.

The symptoms of disease of the brain, as sumed up by Dr. West, will be acknowledged as an accurate delineation, by every one who has observed the progress of infantile cerebral affections.

He says:

It may be well to pause here for a moment, and briefly to pass in review *the symptoms* by which disease of the nervous centers, and especially of the brain, manifests itself in infancy and early childhood.

The painful sensations which the infant experiences soon show themselves in the haggerd, anxious, or oppressed look, which takes the place of the naturally tranquil expression of its countenance. It often puts its hand to its head, or beats or rubs it, or, while lying in its cot, bores with its occiput in the pillow, owing to which, in childreen who have suffered for any time from uneasy sensations in the head, you will often find the hair worn quite off the occiput. It turns its away from the light, and lies much with its eyes half closed, in a state of apparent drowsiness, from which it often arouses with a start, and cries. The cry, especially in inflammatory disease, is peculiar; it is generally a low, constant moan, very sad to hear—interrupted occasionally by a sharp, piercing, lamentable cry, almost a shriek. If the child be young it will often seem relieved by being carried about in its nurse's arms, and while she is moving will cease its wail for a time, but begin it again the moment she stands still. You will sometimes observe, too, that if moved from one person's arms to those of another, or even if its position be slightly altered, a sudden expression of alarm will pass across its features; the child is dizzy, and afraid of falling.

You see, then, that even in the infant there is a language of signs by which we learn with certainty the existence of pain in the head, and the connection of this pain with dizziness

and intollerence of light. You must beware, however, of concluding frrom any one set of symptoms that the head is the seat of real disease. The child as well as the adult, may have sick headache, and the degree of febrile disturbance, of heat of snrface, and of heat of head, together with the state of the digestive organs, are all to be taken into account in forming your diagnosis.

Something may be learned of the state of the mental powers and of the feelings even in early infancy. Have you never watched an infant on its mother's lap, and noticed the look of happy recognition with which its eye meets that of its mother? An early result of cerebral disease is to interrupt its intercourse; the child now never seems to catch its mother's eye, but lies sad and listless, as if all persons were alike iudifferent to it; or at other times even familiar faces cause alarm, the child apparently not recognizing those who yet have always tended it. This disturbance, however, is but momentary, and the child subsides into its former condition, and allows itself to be taken by those at whom a moment before it seemed frightened.

But these symptoms are to be interpreted by the light thrown on them from other sources, and by the information, both positive and negative, thus obtained. You fear that disease is going on in the brain; but is the skin hot?—is there heat of head?—are there frequent flushings of the face, and does the accession of each flush seem connected with an increase of agitation and distress, or followed by a deepening of the drowsiness? Is the fontanelle prominent and tense, or are the pulsations of the brain to be felt with usual force through it?—are the veins of the scalp full, or do the carotids beat with unusual force? What is the character of the pulse?—is it not merely increased in rapidity; but even when examined under exactly similar conditions, does it afford a different result each time? Do you find it irregular in frequency, or unequal in the force of its beats, or even distinctly intermittent? Again, what is the state of the pupil?—is it generally contracted, as if to exclude light as much as possible from the ever-sensitive retina? or is it usually dilated, and does it act slowly, as though disease had deadened the sensibility of the nervous system; or do the pupils of the two eyes not act simultaneously, but one more readily than the other? Do the pupils oscillate under the light; at first contracting, then dilated, and either remaining dilated or continuing to oscilate, though within narrower limits, and with a

tendency to remain more dilated than at first? Or, lastly, do you find, when the child is roused, this oscillation of the pupil going under the ordinary amount of light that enters the chamber? Now all of these are indications of disordered function of the brain, and many of them point to a disorder of a very serious kind.

We give the above extracts as fair specimens of the style of the work, but to be fully appreciated it must be read and studied, for it is replete with valnable instruction, of that very kind that every practitioner must feel the need of at the bedside of his little patients.

The book contains 496 pages, bound in calf.

For sale by W. H. Derby.

Georgia Blister and Critic.—The first number of this new journal has been received. It is published by Dr. H. A. Ramsay, of Atlanta, Georgia, and contains many spicy, and some "Blistering" articles. We have faith in the curative power of blisters, when properly applied, and Dr. Ramsay seems to understand their theraputic effect. Success to the "*Blister and Critic.*"

Progress of Medicine.

GERMANY.

The Late Professor Recamier, of Paris, France.—During my sojourn at Paris in 1850, says Dr. Drost, a German physician at Osnabruck, in Prussia, I made, among the multitude of medical practitioners, the acquaintance of a distinguished man, whose death, which took place at a later period, caused a great loss to science, which he promoted, as well as to suffering humanity, to which he had shown himself to be a real benefactor. This man was Professor Recamier, honorary physician at the Hotel Dieu, one of the oldest hospitals at Paris, perhaps the oldest in Europe. Endowed with great talents, distinguished for an uncommon diagnostical acuteness, and unceasingly devoted to his studies, he was enabled to

unfold a rare and beneficent professional activity. His astonishing success as a practitioner, vividly called to my recollection the celebrated Professor Heim of Berlin.

The foregoing remarks of Dr. Drost are followed by extracts, taken from the Gazette des Journaux Francais, in relation to two interesting cases of disease, to both of which Recamier was called in consultation—his usual fate. The sound judgment evinced in the first of these cases and the diagnostical skill in the latter are characteristic evidences of his professional ability and explain to us the deep regret felt by his friends when informed of his death. No man had formed a clearer conception of the mutual relations between body and mind, and no physician was more capable of treating the mind through the medium of the body and vice versa. The cases alluded to are the following:

A British military officer residing temporarily at Paris and revelling in the dissipations of that seductive capital, had on a certain occasion partaken too copiously of wine, the vapors of which, acting on the brain, had thrown him into a state of raving mania. During the paroxisms of rage he destroyed everything coming within his reach and frustrated every effort of three eminent practitioners attending on him. Failing in their endeavors to restore calmness to his mind, they had him tied down on his bed, expecting at every renewal of the paroxisms, to see him hurried away into the dark chambers of death. In this extremity Recamier was sent for. On entering the room where the wildest confusion reigned, he calmly observed the maniac. The man foamed with rage and his whole body was shaken convulsively. Recamier enquired into the character and previous habits of the soldier, as well as into the circumstances preceding the attack. They tell him, that the officer is one of the bravest in the British army, a slave to order and discipline. At Waterloo he had, at the head of a hundred men only, charged and taken a strong position of the French, leaving 2000 of their men dead on the field. On hearing this Recamier asked no further questions. Without saying a word he left the room and hurried down stairs, fifteen minutes afterwards he returned accompanied by twelve assistants, who, however did not belong to the medical faculty. They were twelve vigorous drummers, whom he had taken from their station at the Louvre. The drums hanging at their sides and the drumsticks in hand they were conducted by Recamier into the room of the maniac, who he still finds

raging furiously. On his request the uniform and arms of the officer were brought and by him put on the bed. The lights having been extinguished, as he desired, and the window shutters closed, so as to admit but little light, he walked close to the bedside of his patient, at the same time ordering the drummers to station themselves near the door. On a signal given by him, the drummers commenced beating to charge. The deaffening noise caused by the sound of the drums alarmed the other two physicians; they were apprehensive that a single roll might prove fatal to the maniac. But Recamier remaining calm and collected untied the bonds, with which the officer had been fettered down. At that moment the most courageous fled from the room, and one of the physicians attempted even to draw Recamier off, fearing that the man, in his fury, might cut him to pieces. Recamier stood unmoved, keeping his eyes steadily fixed on the soldier, who, feeling himself free from restraint, made one jump as high as the top of the bedstead. But he gradually soothed down into calmness and passed over from rage into astonishment, and the more zealous the drummers showed themselves in the discharge of the duty assigned to them, the more beneficial was the effect produced on the mind of the officer. In a few minutes consciousness returned. He jumped out of bed, put on his uniform and sword and called to his groom to get his horse ready.

The twofold violent concussion of body and mind had had the effect foreseen by Recamier. Imagining the enemy approaching, the officer became restored to the full possession of his mind and courage and regarded those around him with the natural surprise of a person just awakening out of sleep. He is cured, said Recamier to his colleagues, and nothing more will be required than to permit him to take a ride on horseback.

The second case relates to a young and beautiful lady, who had come to Paris, from a distant province of France, in order to consult the most eminent practitioners there, respecting a mysterious, really incomprehensible malady, to which she appeared to be doomed to fall a victim. She would fall into a deep sleep, lasting for days, during which she manifested no sign of life whatever. Her nourishment consisted in a spoon full of vanilla ice cream, given to her at intervals of days. A ray of light seemed to extinguish her life, like a heavy night frost the life of the tender flower, and a single motion would throw her into a state of deathlike immobility.

She lay stretched out on her bed in a room closed to the light of day, watched over by her mother, who kept herself closely confined with her. We may easily conceive, that the anxiety of the mother claimed all the skill and science of the attending physicians. All of them, and even the most experienced, hesitated in exhibiting medicines or in expressing an opinion on a case, which presented so many difficulties. One day Recamier and two of his celebrated colleagues were sent for. The latter, after a careful examination, thought to recognise a disease of the heart and recommended a corresponding mode of treatment. Recamier alone, diagnosticating an affection of the nervous system, told the mother, with his usual frightening precision, that her daughter ought to be taken on a jolting waggon to the sea shore. The fright of the mother at an advice, coming so unexpected, may easily be imagined. My daughter, she replied, cannot even sit up in bed without falling into a swoon. The first day, said Recamier, in return, you will believe her to have died, on the second she will come to herself. The harder the jolts and the more frequently they are repeated, the sooner she will be enabled to recover her strength and triumph over her disease. The mother, however, prevented by her fears from availing herself of the remedy recommended by Recamier, thought it more prudent to follow the advice of his colleagues. But as the daughter did not improve under the treatment, on the contrary grew worse from day to day, there remained, at the close of the year, but the hope to take her home, that she might die in the midst of her family.

But how remove her from Paris and travel with her so great a distance? Fortunately the mother, in her perplexity, recalled to her mind Recamier's opinion and advice. Taking courage therefrom she had her daughter placed in a stage coach. At first the distances travelled had necessarily to be short and the greatest caution was observed, fearing that every jolt or accidental obstacle might bring on death. Proceeding thus slowly and cautiously nothing occurred to increase the mother's fears. With each day of travel the strength of the young lady, instead of failing improved visibly, so that she reached her home in a far more prosperous condition than the one she was in on leaving Paris.

All apprehensions of the mother having now vanished and her doubts removed, by the experience of the journey, she resolved to adhere strictly to Recamier's advice and to follow

it to its minutest details. She put her daughter alternately on heavy jolting waggons, on horseback and on the back of a donkey in order to let her take a ride. She persuaded her to go through regular bodily exercises in open air, to suffer the waves of the sea to play around her body and to inhale the fresh atmosphere of the ocean. By persevering in this course of treatment the young lady regained health, strength and her former graceful form. To these treasures she afterwards added a splendid reputation, for she is now one of the most beautiful and popular writers in French literature.

Miscellany.

Felt Splints. By FRANK H. HAMILTON, M. D.—Some years ago, I think in 1845, felt splints were brought to me by an agent of the manufacturer. The felt was sold in sheets, and also in pieces, modeled so as to be readily adapted to the form of the limbs. In some respects it was superior to gutta percha, and I am inclined to think on the whole it was the best splint ever used. I cannot learn that these splints are now manufactured in any part of the United States, and I will therefore enclose you the recipe for making them, which was kindly given me by the agent, and which I have frequently used myself:

Dissolve three pounds of gum shellac in two quarts of alcohol. It should be dissolved in a tin vessel, furnished with a tight cover to prevent evaporation. Spread a piece of old or new woolen cloth on a board, and with a clean brush saturate both sides of the cloth with the solution. Hang it up until it is thoroughly dried. Lay it again upon the board and apply a second coat of the solution to one side only of the cloth. Dry again, and apply a third coat to the same side. There will now be three successive layers upon one side and one on the opposite. While the last coat is yet fresh, fold the cloth so that the side having three coats shall be applied to itself. Now with a hot flat-iron smooth and press the surfaces togetner. When it is cold, a slight rubbing with sand paper makes it fit for use.

It becomes a firm, almost unyielding board, but exposure to a moderate heat will make it pliant, so that it can easily and accurately be adapted to any surface.—[Buffalo Medical Journal.

Brewers' Yeast in Puerperal Fever.—Dr. Gideon B. Smith, in a letter to the editors of the Boston Medical and Surgical Journal, after detailing two cases successfully treated by brewers' yeast, observes, "I have still continued to rely upon it as the sheet anchor of hope, under God, in all cases assuming a typhoid character, and in all eruptive diseases of whatever form, with the happiest effect, not having lost a single case when the remedy was freely used. In these cases of puerperal fever, and especially the first, complicated as it was with a high degree of inflamation of the woomb, as well as of the peritoneum, I do not believe the patient would have survived the ordinary treatment three days. The malignant symptoms were as marked as their supervention was rapid. Within thirty-six hours after the first symptom of the attack, there was every evidence of the putrescent state having commenced; and in less than four hours after taking the yeast every symptom of putrescence had abated, and in twenty-four hours disappeared and never returned.

"I must remark, that I can give no other reason for using brewers' yeast than that furnished by its good effects in previous cases. I confess it is a purely *empirical* remedy. It is not the carbonic acid gas of the yeast that performs the almost miraculus work of the remedy, for I have used carbonated waters much more highly charged with it, without any such effects. What then is it? Strange to say, that while every other liquid highly charged with carbonic acid gas causes large eructations, the yeast never has any such effect. It causes no flatulence nor distension of the stomach, though taken in sufficient quantity to puff up a barrel of flour made into dough. Neither distillers' yeast, bakers' yeast, common family yeast, nor the common yeast powders, have the same effect as brewers' yeast. Neither does stale brewers' yeast have as good an effect as that which is fresh—say not more than one or two days old."

Local Anæsthesia—Employment of Hardy's Instrument.—The first essay with this instrument was made by M. Nelaton at the Clinique, upon a girl who was suffering from abscess of the axilla, and from a small wound upon the back of the wrist both extremely painful. The instrument was composed of a caoutchouc reservoir of air adapted to a copper pump, made to receive the sponge for the chloroform. A valve at one extremity permitted the air to enter the instrument, which terminated in a caoutchouc tube. The first application of the

chloroform upon the tumour of the axilla produced an insensibility which lasted three hours, during which time the part could be handled and examined with impunity. In the second essay, M. Dubois plunged a knife in to the abscess, wnich was ripe, after the employment of the chloroformic fumigation. The patient declared that she was not conscious of pain, and became aware of the fact that the abscess was opened only by touching the part with her hand. From this time she had no more pain. The little wound on the wrist, fumigated in the same manner, remained quite insensible.

Editorial.

ENGLISH AND FRENCH THERAPEUTICS.

One of the greatest obsticles in the way of national progress in practical medicine, is the force of *prejudice*. If it were constantly borne in mind that the practice of medicine is an induction from *facts*,—that it is based on *observation* and *eperiment*, and that the claims of a remedy on professional confidence should be tested by the competence of observers, and the extent of accumulated evidence, there would be less difference of opinion as to the value of these therpeutic agents. But instead of this men's prejudices too often take the place of reason and fact. They allow their judgments to be warped by pride of opinion. They look at facts of an adversary through a distorted vision, or perhaps refuse even to make them subjects of investigation. Test the opinion of such by the well established rules of evidence and they are found to have no basis. Negative testimony is placed in opposition to *positve*; or speculative theory is substituted for observed fact. One man tests a long and well established remedy in one, two, or three cases, and he is disappointed in his expectations. He at once abandons the remedy, and ever after pronounces against it.

Forgetting that his observations are limited, that his cases may have been unskillfully diagnosed, and the remedy, therefore, injudiciously prescribed, he ever after, notwithstanding the amount and respectibility of testimony against him, closes his eyes to the observations of others.

We have been led to these reflections by the great discrepancy in English and French therapeutics. Here national prejudice, we fear, is a great hinderance to the progress of rational investigation. The difference of opinion as to the efficacy of remedies in the cure of pulmonary consumption, furnishes a striking example. Throughout the British Isles there is a general belief in the curability of pulmonary plithisis in its early stages, and occasionally in its latter. And the grand principal of treatment is such as is recommended by a large majority of American practitioners, consisting in the use of a tonic and restorative system of diet, combined with the employment of fish oils and other hydrocarbons. Without stoping to speculate about the *modus operandi* of cure, *cod-liver oil* has been prescribed in thousands of instances of late years, and there is a large amount of respectable and growing evidence in its favor. In thousands of instances this remedy, together with a proper hygiene, has arrested the disease in its early stages. Its effects in improving nutrition and arresting cough are often singularly striking; and though it is far from being a specific in this terrible malady, it nevertheless, in the present state of medical inquiry, offers greater probability of success, when timously and judiciously administered, than any other remedy known to our materia medica. And yet, strange as it may appear, an essay has been recently read before the Academy of Medicine in Paris by one of the most expert physical diagnosticians of the Continent on the treatment of phthissis, entering elaborately into the various branches of the subject, without the slightest mention of cod-liver oil, or any substitute for it.

Why refuse to even make mention of an article that occupies, at the present time, such a prominent position before the medical world in the treatment of phthissis pulmonalis? With all due respect for the learning and ability of the renowned M. Piorry, we cannot but regard this omission in his essay as a result of national prejudice, and the more to be regretted because it may mislead.

COMMERCIAL HOSPITAL.

An appropriation of $80,000 was made by the City Council of Cincinnati, on the 5th instant, for the immediate erection of a new hospital on the grounds so long occupied by the old Com-

mercial Hospital. These grounds include four acres in nearly the exact centre of the city, and were wisely and judiciously selected, at an early day, for the purposes for which they are now appropriated. Bounded on three sides by wide streets, and on one by the Miami Canal, a delightful ventilation is permanently secured against every encroachment from surrounding sections.

It is the purpose of the Council to erect an extensive and magnificent structure, supplied with every comfort and convenience for the sick, in accordance with the most advanced improvements in modern architecture. The grounds will be laid out with shaded walks and grass plats, which shall be as delightful an ornament to our parkless city, as they will prove an attractive home and grateful blessing to the unfortunate and afflicted.

The erection of such a hospital in Cincinnati has long been needed; and to the Medical College of Ohio, and to Clinical Medicine in the West, it will bring advantages not surpassed on the Continent.

FISTULA IN ANO.

We extract the following from a letter of C. B. Snell of Williamstown Ky.

"I notice in your April number, an article from the French, on the cure of Fistula in Ano by injections of Iodine, which reminds me of a very bad case of that disease that was cured a short time ago in this neighborhood by injections into a Fistulous opening of a strong decoction of Tobacco. The cure was most complete, notwithstanding the patient was at least seventy years old, quite debilitated, and the case of six years standing.

C. B. S.

☞ It will be seen by reference to the card of the Medical College of Ohio, that the Trustees have created a distinct chair of *Clinical Medicine.* This has been demanded by the growing importance of this department of Medical Education, and by the increased facilities afforded in our city for Clinical Teaching. With a population in Cincinnati, and the adjoining cities, of near *two hundred thousand souls*, and a New Hospital commensurate with the wants of the indigent poor, this must be regarded as one of the most attractive points in the Valley of the Mississippi for the student who desires to cultivate bed-side practice.

☞ It will be remembered that the Ohio State Medical Society meets in Cincinnati on the first Tuesday in June. We hope to to see a large attendance, as business of much professional interest will be discussed during the session.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL AND PRACTICAL ANATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY RESIDENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

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Original Lectures, Essays and Communications.

Observations on the Asiatic Cholera, as it appeared in Cincinnati during the years of 1849 *and* 1850. By Thomas Carroll, M. D.

During the year 1848, the people of Cincinnati, in common with those of the country in general, began to anticipate an invasion of the Asiatic Cholera, as it was known to have again left the banks of the Ganges, to have wended its way westward, and to have actually passed the sandy deserts, as well as the mountain ranges of the old world. As usual, its course did not lie in a direct line, but meandered to suit the great thoroughfares of travel. Neither sandy deserts nor mountain heights could stop its progress; but, like an insidious enemy, it stole onward, sometimes concealing itself, and again breaking out with renewed and increasing violence. In the meantime, the inhabitants of those countries that lay nearest to its ravages, heard of its progress with fearful anxiety; even distant lands throughout the civilized world began to feel that the pestilence would probably visit all the commercial portions of the globe. At the period, however, to which we have referred, few persons supposed it would visit this country before the year '49, but this period was

anticipated by its arrival at New Orleans in the ship *Swanton*, as early as November 11th, 1848. It soon spread in that devoted city, first amongst the destitute, and then amongst those in better circumstances; all classes eventually feeling its power to a greater or less extent.

All who believed that Cholera was conveyed by human intercourse, now felt that it had gained a firm footing on the American Continent, and that, before it would bid it adieu, Cincinnati would, without doubt, be one of the localities where it would delight to make a display of its fatal powers. We were admonished of this by its visitation in 1832, and still more by our unceasing intercourse with New Orleans; this intercourse bringing to our city a continuous stream of emigrants, who, we had reason to know, would arrive laboring under the disease, or so charged with its poison that a week or two would develope it in their persons. Accordingly, as early as the 25th of December, patients laboring under Cholera arrived at our landing and were hurried through our midst to the Commercial Hospital. The decks of many steamboats on the waters of the Mississippi became charnal houses at an early period. Deaths occurred on boats both on their ascent and descent. Hundreds died and found graves in the sand, whose names were never after told; still the intercourse had by our citizens with the river population satisfied them that severe mortality was recurring constantly on that great avenue of commerce.

From January 1st, 1849 until the close of the Cholera season in September, but few days elapsed without the occurrence of cases in Cincinnati. Even before it had arrived here by the boats, not a few declared that they felt the epidemic influence. The author of this paper knows one physician who seemed to take the Cholera by telegraph, and he, with a few others, were meeting with frequent cases throughout the winter. The quacks, too, had a faculty of meeting with many cases, and their success in the treatment of the pestilence was beyond all former example. Their friends, indeed, seemed to have but little fear of *the monster*, as the skill of the Eclectic and Homœopath promised certain relief, without the danger of mercury. But, alas! the time arrived when the fell destroyer set at defiance all their boasting and all their specifics.

During the winter, and, up to May, 1849, it was not the writer's fortune to meet with a case of Cholera, although he had, during December, an unusual amount of professional

business, which continued until January 10th. After this date the health of the city was unusually good, as evinced not only by the bills of mortality, but by the public as well as private practice of physicians. It is, however, true that there were occasionally cases of Diarrhœa during this period, such as we occasionally meet with during the winter and spring. Yet, so far as general health was concerned, there seemed no cause for alarm, at least to the anti-contagionists; but to the few who considered the malignant Cholera as a transmissible disease, there was much to be apprehended calculated to excite their fears and to admonish them of the storm that lowered in the horizon. They knew that about 14 cases had been sent from the river which had arrived between the 25th of December and the 10th of January, and they knew that, at least, 7 or 8 cases had occurred in the city and hospital, amongst those who had been exposed to the influences of the river population, or to the cases direct from the Steamboats.

After the 10th of January the disease still lingered, for there were still 7 or 8 cases under treatment at the Commercial Hospital. On the 12th, two more cases were reported from the hospital, and on the 13th these two cases were reported as dead. On this day another case was reported from the river, and on the 15th an old case at the hospital succumbed. As no new case had occured from the 13th up to the 17th, it was on this day determined by the Board of Health to report no more cases, which determination was religiously adhered to until the 10th of May. *Why* the Board took this course, no one knows. We presume, however, that the force of public opinion, or what they thought to be public opinion, swayed their judgment.

The above will show that cases of Cholera were occasionally brought into the city, and that a few had occurred amongst the inmates of the hospital and the citizens. During this period, a number of corpses had been taken to their friends in different parts of town. These had succumbed on their way from New Orleans. From the 17th of January until the 10th of May, little more was heard of the disease, although occasional cases had occurred during that period, and had even become frequent in the south-western part of the town. On the 10th of May, Judge Brough suddenly died of Cholera. His death, combined with his position in society, had the effect to produce general alarm and consternation amongst the citizens of both town and country. New cases

after this were marked with more care, though certainly not with accuracy. The Board of Health seemed to awaken from their hibernation, and actually reported 75 deaths between this time and the 15th of June. The fallacy of this report will be seen by and by.

By the 15th of June, the pestilence had gained a firm footing; indeed death seemed to stare every one in the face during the succeeding 36 days. The alarm, however, appeared to subside as the mortality increased. Excitement gave way to resignation in the good, and to thoughtlessness in the bad. Many drowned fears in the intoxicating bowl, while others, indeed a large number, ran after all kinds of specifics, with the hope of averting by their use the impending blow. During the period under consideration, the Board of Health reported, from the 16th of June to the 16th of July, 3618 deaths, from all diseases. Of these, 2475 died of Cholera; but this does not, in the writer's opinion, reach the actual number of deaths from the epidemic, by many hundreds. The week ending July 9th had the severest mortality—there having died in that time, from all diseases, 1022.

By the first of July we had, by constant observation and inquiry, ascertained that the pestilence had reached every part of the city. In the north and north-east, it was then raging with fearful violence; while, in the south-west, it had in some degree subsided. A knowledge of these facts led me to the conclusion, that the force of the malady would be spent in a very few weeks, and we stated to many that by the 20th or the 25th of July, the epidemic would have, in a great measure run its course. In accordance with our anxious hopes, the bill of mortality had, on the 20th, dwindled down to 32 deaths from Cholera; and, on the 30th, but nine fatal cases were reported.

On the 6th of August, the Board of health determined to meet thereafter but three times per week. On that day but 6 deaths were reported as having been caused by Cholera, although there had been 12 deaths reported on the preceding day. No doubt many of these cases occurring near the close of the epidemic, were amongst the transient population. Indeed, we heard of a number of deaths occurring amongst country people who had come to see their friends, after all thought of danger was over. Still, however, a few more cases took place amongst our citizens, until the middle of September—that of the lamented Prof. Harrison being one of these. After this time there were very few instances of

the disease; but *dysentery*, *small pox* with *varioloid*, continued their course. The former had prevailed, to a greater or less extent, from the time of the first invasion of Cholera in June, or earlier. Now, however, it became more frequent and probably more intense in its character, and only disappeared on the approach of winter. The small pox began to spread during July, and continued to increase until December, when it showed signs of abatement, but did not wholly disappear until the summer of 1850.

The Cholera of 1850 was different from that of '49, both as to the time of its appearance and disappearance, as well as to mortality and severity of symptoms. In this year, it did not re-appear until the last week in June, and had run its course, in a great measure, by the end of July; disappearing, except in a few instances, before the middle of August. Not quite 900 cases were reported to have died of the pestilence, although the reports of the Board of Health were more accurate than in the preceding year. It will be seen hereafter, that many localities in which death reigned triumphant during the first year of the epidemic, were, in 1850, almost exempt; and that, in most of those which suffered from a second visitation, the disease was much less severe than in '49.

Causes.—In order to a proper knowledge of the causes of the spread of Cholera in Cincinnati, it will be necessary to consider, first, the elements of the population of our city, and, secondly, to notice the topographical peculiarities of particular districts.

Had all the citizens of Cincinnati been natives of the United States, or of America, the mortality which we suffered would probably have been diminished by one half. At least one third of our whole population are foreigners. Of these, the greater portion are German and Irish; the former, for the most part, in his humblest relation with civilization; the latter in his lowest degradation. The remaining portion are English, Scotch, Welch, with some French, and a few from other nations. There is, however, a considerable number of foreigners who have been in more favorable circumstances as to education, &c., in their native countries. These must be left out of consideration in speaking of the more humble, whose modes of living are peculiarly unfavorable for the prevention of pestilential maladies.

The poor foreigner possesses not only filthy habits in his mode of living, but has a peculiar inclination to avoid ventilation in his dwelling. This is especially the case with the

German; for even the better educated and refined of that class have a horror of free ventilation. The German physician, even, seems to fear currents of fresh air. But the German physician does not stand alone in this matter; for I believe but few foreign physicians understand the true nature of, and the benefits arising from, free ventilation, so well as those of the United States. So far as my observation went, it was a common occurrence amongst the Germans for the windows and doors of the chamber of the Cholera patient to be closed so soon as the disease made its appearance, even when the mercury stood above 90° Fahr. Heavy bedcloths, and sometimes a fire in the room, contributed their part to these scenes of horror. Why do I say scenes of horror? Because few after such management ever escaped alive. The Irish were more in favor of ventilation than the Germans; as were the Scotch and Welch—the English still more so; and this latter class I believe suffered less than other Europeans. This was in part, however, owing to their more cleanly habits.

The want of sufficient house room was still another cause of the spread of the epidemic. The poor foreigners sometimes occupied houses containing six to twelve rooms, with a family in each, some of whom not unfrequently kept boarders. The Cholera visited many of these crowded localities with fearful mortality, often carrying off from a fourth to a half of the inmates in a short space of time. I know of one house in the north-eastern portion of the city, where 28 fatal cases occurred—16 of these succumbing in a single night. But of this more hereafter.

The above facts only in part account for the mortality amongst the immigrants. Another, and probably greater reason was, their unacclimated condition, which rendered them more obnoxious to every form of disease than the native or acclimated. Indeed, we are not aware that the acclimated foreigner suffered more than the native born American. We must take into consideration, too, not only the change of climate, but the change also of food and drink, and all those exciting circumstances that grow out of a change of country and of home; such as being cast in a land of strangers without the necessaries of life, or even the certainty of shelter for the coming night. So soon as the emigrant sets his foot on our soil, he is beset with many temptations unknown to him in his own country. The various kinds of unwholesome food, and, above all, the facilities for an indulgence in strong

drink are prominent amongst these. In his own country, indulgences of the latter character were necessarily only occasional, and made but few inroads upon his constitution. Here, being inexperienced in observing the injurious effects of constant drinking, he gives himself up to it without regard to consequences. These dissipations soon increase the liability to disease; and, when attacked, the tendency to a fatal termination is much greater than in the man of temperate habits.

The emigrants who arrived at our wharves during '49 and '50, generally came on the decks of steamboats. These decks were then, as now, the common receptacle of all kinds of filthy and degraded people. Here they ate and slept amidst filth and heat, both from without and within. When one of them sickened with the Cholera, his situation made his fate nearly certain. He vomited and purged on his humble bed; he died, and his wife and children lay on the same couch after his demise. They, in their turn, were attacked by the withering blast of the pestilence, and their places were filled by others. Thus 10, 20, 30, or 40 sometimes died on a single boat between New Orleans and Cincinnati. The survivers arrived at our landing, some laboring under Cholera in its incipient form, some in the second stage, or on the point of, if not *in* profound collapse. These were hurried through the streets of the city to the Commercial Hospital, or to some of the institutions for the relief of the sick in those years, where not a few of them sunk into the arms of death soon after their arrival. Others again were carried to different parts of the city to find a resting place amongst their friends. Here they died or recovered, but in either event it was not uncommon for those who had ministered to their wants to be themselves attacked, at an early period, with the same malady.

We proceed next to speak of the city in reference to its localities, municipal regulations, &c., as constituting causes of the spread of the pestilence and its great mortality. For a description of the topography of Cincinnati, I must refer the reader to the great work of Dr. Drake on the *Diseases of the Interior Valley of North America.* We will only pause to say that the city stands upon the right bank of the Ohio river, and is situated on a plain consisting of two terraces—one narrow and low stretching along the river, the other sixty or eighty feet higher and eight or nine times as wide—the first, in former times, at several points swampy; the second, never, but slightly declining toward the base of

the silurian hills which skirt it on the east and north. These hills rise a few hundred feet above the plane of the city, and cause, in that part of the plain adjoining them, a more sluggish circulation of the atmosphere. As the higher terrace extends west, it gently declines to meet the low lands of Mill Creek, which are so low that they, in common with the first terrace, are occasionally flooded by the high water of the river. Indeed, some of these bottoms are overflowed several times every year. The first terrace has been so but three times, within the memory of the white man. These terraces are traversed by two canals; the one on the lower, very stagnant, and the cause of much intermitting and remitting fever; the other, the source of much less disease, and probably of very little, as it has a considerable current.

Having said thus much of the general topography of the city, we shall examine with some care how much different localities may have had to do with the spread of the Cholera and its fatality. And in this examination it will be found that mere altitude had very little effect in any way; that often where there was great mortality at a particular point, there was little or none in the immediate vicinity, or even in the adjoining house—the most appalling having occurred within a very narrow space, while for squares around the pestilence was scarcely felt; and that sometimes where the inhabitants of the upper stories of a house had suffered from the disease, those of the lower were exempt.

We will first glance at that part of the city that lies on the lower terrace, and which has connected with it not a few sources of malaria. That portion of this terrace extending from its western limits in the city and up to Freeman street, a distance of 80 or a 100 rods, and which contained, in 1849 a few hundred inhabitants, was visited by the Cholera in that year at only a few points, and in 1850 in a still less degree; yet no part of the city is more affected by malarial diseases than this. In the few cases of Cholera that did occur, more could be attributed to the mode of living, the confined apartments, and the filth to be found wherever it appeared, than to any thing else. The actual number of deaths in '49 was 32, in '50 still less. This mortality, it is presumed, amounted to not more than 1 in 15, and occurred almost exclusively amongst foreigners.

In that portion of this terrace lying between the foot of Fifth street and Main, a distance of about three-fourths of a mile, we find the basin of the White Water Canal, and some remains of the ancient swamps that have not yet given

way to the march of improvement. The water of the canal is at this point horribly stagnant, and here too we find remitting and intermitting fevers. For the distance of half a dozen squares below Main, the population is quite dense and of a mixed character, though containing probably a predominance of the foreign ingredient—the people being pretty comfortably situated. Below this, and nearer the bason referred to, the population is poor, and much of it in an immoral and wretched condition. Along the immediate base of the second terrace, there is, however, greater respectability and density of population. The portion lying nearest the river has, as yet a comparatively sparse population. Now it was in this region that Cholera did considerable of its work both in '49 and '50; the far greater part, however, in the former year. As an instance of the mortality, it may be stated that on Third street, between Smith and Stone, comprising a population of from three to four hundred, there were, in '49, thirty-seven deaths. On the upper side of Third street above Park, the ground rises ten or twelve feet above the pavement for the distance of three or four hundred feet. The buildings on this side are set back from ten to twenty feet from the street, and have a most retired aspect. During '49 there was but one case in these houses, and that was of an infant, and doubtful in its character. On the other side of the street, the ground is low, and is within 80 or 90 feet of the canal. Here there were many cases, as there were also below Park, on either side—both sides of the street at this point being on a level. In this locality along Third, and in that between the canal and the river, very few escaped without symptoms of the epidemic. On Front, within a very short space, there were 33 deaths. This section is in the immediate vicinity of the Gas works, and has a most debased population; yet the mortality was no greater, if as great here, as between it and the canal. Indeed this latter region may be considered as amongst the worst, as regards the mortality in '49. During 1850 there were some fatal cases, but they were very few when compared with the number in the preceding year.

Following the lower terrace from Main to the mouth of Deer Creek, a distance of five or six squares, the malady appeared in '49 with greater or less violence, the mortality being very great at some particular points. In the neighborhood of Lower Market it was considerable—indeed, in some houses it is thought to have been quite severe. But the severity greatly increased in the vicinity of Deer Creek,

from the upper side of Front to the foot of the second terrace. In one dwelling here, as early as May, four out of six died. This, we believe, occurred before the death of Judge Brough. In a very small space, immediately in the vicinity of Deer Creek, and on Congress street, fifteen died in two or three houses. Front street crosses Deer Creek, and runs up the river to the corporation line. The lower point of Mount Adams presses here closely on the river, and continues to do so for a mile or more. On the lower side of Front the ground descends rapidly to the river, and on the upper ascends towards Mount Adams. On the side next the river there are not many dwellings, but a number of factories; but on the upper side the population is, for a considerable distance, quite dense. On this side of the street, in a population of probably four or five hundred, there were about one hundred deaths; that is, one in four or five of the whole population. This was in '49. On the lower side, on the contrary, there were, above the railroad depot, no deaths; and below it, but one. It is a matter worthy of being recorded, that in the whole distance from the mouth of Mill Creek to Fulton—a distance of near three miles—there were, in the houses opening immediately upon the river, very few deaths, and nearly all of those that did occur were amongst those who were landed from boats, laboring under the disease. Yet a considerable portion of this space, including the public landing from Vine street to Deer Creek, is occupied by drinking shops of the lowest character, and witnesses more dissipation probably than any other quarter of the city. This remarkable exemption from the epidemic, which extended through both years of its prevalence, can only be explained by the fact of the greater facilities for ventilation which this quarter possesses. The whole line of buildings in question enjoys constant currents of fresh air from the river, and these currents are much more lively than those to be met with in the city, even at a short distance from the shore. The drinking houses of which we have spoken, are kept constantly open during warm weather, with the exception of a few hours between midnight and dawn.

We proceed to consider the severity of the epidemic along the immediate valley of Deer Creek, and in the portion of the city lying east of it. This district is the most broken of any of the populated part of our corporate limits, as they then existed. The rivulet which bears the name Deer Creek, emerges from a gorge of the hills in the north east, and con-

stitutes the extreme eastern boundary of the second or upper terrace of the city. On the east is Mount Adams, which rises rapidly for several hundred feet. The steepness of this hill-side does not, however, prevent the construction of houses, which may be met with from the base to the summit. The very narrow valley through which the stream runs, is constantly filled with an incalculable amount of filth. Slaughter houses abound here, and, during the great swine-killing season, the rivulet is constantly dyed with blood. During dry weather, the stream ceases to flow, and accumulations take place which putrify and send their exhalations by the winds against the declivity of Mount Adams, and in other directions. Yet it is said that in the year 1832, and also during the following two years when the Cholera visited the city, no cases occurred in this valley; and this was in a great measure the case in 1850. In 1849, however, not only did the inhabitants of the valley suffer most severely, but the malady extended to the very summit of Mount Adams. Thirteen patients died in a very small space on the hill-side near the summit. Near the base of the hill, and a few squares from the river, is a narrow street, not more than two or three hundred feet long called Dublin street. This street is badly built, and peopled by Irish laborers. Here there were, in a population of two or three hundred, twenty-four fatal cases between the first of May and the first of June. From a little above this point until the city ceases to extend along this valley, there is a population of a few hundred inhabitants, and here there were not less than forty fatal cases of Cholera in '49.

We pass on to speak of the more central and refined portion of the city. This district may be said to lie principally upon the upper or diluvial terrace, is more exposed to the free circulation of the atmosphere, is more cleanly, the houses larger and better adapted for ventilation. The citizens are here more wealthy, mix less with the masses, and are more American in all their habits. Yet within this space there are at least two market places; and around these there is much crowding and considerable of the filth common to such localities. In these places there were many cases of Cholera. This was especially the case on Fifth St., for some five or six squares west of Main, though the mortality here was not equal to that of some places we have pointed out. Within this space, however, was one house, two and a half stories high, in which resided a great number of families, occupying one or two apartments each, making in all about one hundred

inmates. On the first of June, '49, the two upper stories—or rather story and half story—alone, contained near seventy persons. Of these, 24 died within three months. Now this house was, and has ever since been, occupied principally by Germans, and was, of course, kept in a closely confined, and, it is believed, filthy condition. It is worthy of notice, that in the first story, although considerably crowded, not a single death occurred. The persons occupying this floor were, however, entirely disconnected from those above; were, I believe, most of them of a different religious faith, and more cleanly in their mode of living. There were very few cases in the immediate vicinity of this house in '49, and in '50, it is thought, not one; showing pretty conclusively that the dreadful mortality just referred to was the result of some specific poison altogether independent of location. On Main St., between Sixth and Seventh, there were, in '49, 17 deaths from Cholera; in '50, but 1. This will serve to show to what extent the business portions of the city suffered in the former year.

We will now take a view of those districts less connected with business, and equally far removed from intercourse with the multitude. On Fourth St., for example, which is more than a mile long, there were, in '49, not more than 14 deaths; and, in '50, but two or three. On Seventh, Eighth, and Ninth Sts., where the population is of a mixed character, there was the same exemption from the epidemic; indeed, we are inclined to think the mortality, in the more retired portion of these streets, was even less than on Fourth. On Third, which has a less wealthy and more business-like population, and which lies on the declivity between the upper and lower terrace, the mortality was much greater.

Leaving the more favored sections, we come to that part of the upper terrace lying between the base of the hills on the north, and Tenth St. on the south. This extensive region is a little lower than the preceding, is traversed by the Miami Canal, and has on its northern border one or two small rivulets that drain it of the waters coming down from the hills. Much of the population of this district is German, and in many places it is densely crowded; a condition of things owing, in part, to the spirit of speculation, and in part, to a willingness on the part of the city authorities to gratify the taste of that class of people who seem to rejoice in nothing more than crowded, confined, and badly ventilated localities. In the south-east quarter of this district, and near the canal,

is Abigail St., narrow and closely crowded. It extends through two squares only, and is, therefore, from six to eight hundred feet in length. On its eastern half, I found there were, in '49, not less than 50 fatal cases; on the western extremity about 30, of which eight or ten occurred in one house. The population here was principally German; many of the residents were draymen, who were daily connected with the river business. Keeping still east of Main St. we find a heavy mortality north of Abigail, which seemed to increase in the immediate vicinity of the river hills. In a single house, as has been mentioned, 28 persons fell victims to the disease. Of these, 16 died in one night. These were all Germans—the house much crowded and the street narrow. This condition of things holds good for some distance around this point, yet in 1850 this quarter was almost exempt from the pestilence. Here we have a reason for the prevalence of Cholera in '49, but none for its absence in '50, excepting the fact that the inhabitants who survived the shock of '49, having gone through one attack of the disease, were less susceptible to its influence in the succeeding year. Of this we shall speak hereafter. But the epidemic did not in this quarter either, confine itself to the low grounds of the city. As in the case of Mount Adams, it ascended the hills on the north; being limited in this ascent, however, to the two great avenues of intercourse with the city—the extension of Sycamore street to Mt. Auburn, and that of Vine to a village a mile from the city. At the point where the former begins to ascend the hill, and for some distance in that direction, there is, on the west side, a considerable population. Here the pestilence was dreadful; and, continuing its ascent, a number of persons on the highest point of the hill were attacked. One family enjoying all the comforts of life—at least all that money could buy—suffered severely. There were, I think, in this family, six persons, all on the alert. They dieted according to the Graham system, they prepared themselves with Homœopathic powders and pills, they made use of Hydropathic preventives; but with all these were unsafe, for they mixed daily with the city population. One became ill. He swallowed his sugar powders, his quack was called, but alas! he died. The quack himself sickened and died from a neglected Diarrhœa. All of the family, with a single exception, met with a similar fate. Even their female doctor, who knew as much about quackery as any of them, also fell a victim. The fate of this devoted family teaches an im-

pressive lesson, and as such we commend it to the contemplation of all living quacks, as well as to the serious consideration of the more wise and discerning. The village at the end of Vine St. Avenue, of which we have spoken, has a population essentially German in character; and, as usual with Germans, in '49 had many fatal cases.

In speaking of Vine St. Hill, we have gone westward a distance of three squares, and still find ourselves in the midst of a population whose sufferings, at least in '49, were severe in the extreme. Near the base of this hill is a large Catholic Church, with a most extensive congregation. This congregation, we are informed, lost, in '49, more than thirteen hundred of its members—truly a most awful mortality. West of this locality the epidemic extended, still being rather worse near the hills bounding the city in that direction than farther south. Yet this was not always the case, for many points in the southern portion of this section suffered severely. At the corner of Walnut and Twelfth there is a small German tavern, where six persons died between midnight and noon of the following day. On Walnut, between this tavern and the next corner above, ten more died within the succeeding fifteen days. On the opposite side of the street, there were but two deaths. Directly west of this locality, and close within the angle made by the Miami Canal, there is a short street, about three hundred feet in length, called Grant. Here were seventeen deaths. In a large house on Elm, immediately above the corner of Grant, nine more succumbed; making in all twenty-six deaths within a very narrow space, thinly populated. On Fourteenth St., next above, in a comparatively small house, there were fourteen deaths, not more than two or three of the residents escaping. Within this space, bounded by Grant and Fourteenth, and by Elm and the Canal, is the Cincinnati Orphan Asylum; yet in it, notwithstanding the great mortality around it, there were, in '49, but two fatal cases of Cholera. In the whole of this neighborhood there was, in '50, if we are not mistaken, very little of the epidemic.

Extending our investigations farther west, we come to the Commercial Hospital. There was here, of course, much of the pestilence, and a considerable amount in the immediate neighborhood. Still farther west, and in an unfrequented part of the city, was the heaviest mortality that anywhere occurred. This was on Rittenhouse St., running from Catherine to Clarke, a distance of two short squares. In '49 this street was but partially settled, the population amounting to

about two hundred and fifty. The inhabitants were mostly Germans, and a considerable number were draymen and wagoners. The street was unpaved, and there was some stagnant water in the immediate vicinity. Now in this little, out-of-the-way place, there were, in '49, sixty-one deaths from Cholera. On Clarke St., directly opposite to the termination of Rittenhouse, there were eight more, making, in all, sixty-nine deaths in a population of not more than three hundred.

It may be proper to say, that it was very common for persons living in basements to suffer from the disease during both years. In one of these, in '49, as many as nine deaths occurred within a day or two.

As we have passed along we have occasionally adverted to the epidemic of 1850. It is proper to recur to this matter with more care. We have already mentioned that those districts which it visited with the greatest severity in '49 were not generally the scene of its ravages in '50. Indeed, few of the localities that suffered much in the former year, were revisited at all in the latter. I know of one house in which the disease appeared a second time, but which had, in the meantime, changed inmates. It is very certain that the German population suffered but very little in 1850, while the Irish were almost as great sufferers in the latter as in the former year. This may be owing to the fact that the immigration from Germany was much diminished in '50, while that of the Irish was unabated, if not increased. We have already pointed out the difference of mortality in several localities in the two years. As farther instances; we may mention Rittenhouse St., the Vine St. road, and the village at the top of the hill, the road leading to Mount Auburn, the valley of Deer Creek, the part of Front St. above this Creek, and all of the district between the Miami Canal and the hills to the north—in all of which places there was an alarming mortality in '49, and in which there were but few cases in '50.

Enough has been said, we think, to show that the epidemic was more dependent for its dissemination upon the various causes producing an absence of free ventilation, and upon filth, than upon malaria or altitudes merely. This opinion will be strengthened by reverting to the history of the Orphan Asylum as connected with this subject.

The author of this paper held the post of physician to this Asylum for a period of eight years, during which time he made many experiments in reference to the influence of well-

ventilated wards upon the health of inmates. When he first entered upon his duties he found the room occupied by the sick was kept in a very close condition, and that this had been continued from week to week, and from month to month. The apartments had that peculiar odor that belongs to the close wards of a hospital, and to filthy and badly ventilated houses in general. He found the sick in a condition most unfavorable to recovery, and was convinced that a number of them never would recover, unless a better condition of things were adopted. He accordingly directed that the rooms should be constantly ventilated both by day and night, and used his utmost endeavors to have the house so arranged that each room should be occupied but twelve hours in the twenty-four. In all the dormitories this was carried out, as it was; in a great measure throughout the establishment, though it was found difficult to have the sick room vacated during half the time. On the approach of Cholera in 1849, these regulations were more rigidly insisted upon. Every child admitted during that year was, by his direction, stripped of its clothing and washed in soap-suds before its admission amongst the other inmates; and the clothing thus taken off was boiled in water before being again used. And now for the results.

During the year '49 there were about three hundred admissions, many of whom were sick when admitted. At the time when the Cholera was raging with its greatest violence, there were seventy children admitted within three weeks, all of whom were said to have been taken from Steamboats, or from dwellings where one or both of the parents had died of Cholera. The whole number of deaths, from diseases of all kinds, in 1849, was twenty. Two or three who were sent into the city to be nursed, and who died, are supposed to be included in this number on the books of the Asylum. In the whole number there were but two deaths from Cholera in its malignant form, though others fell victims to long continued Diarrhœas which were, no doubt, the result of the Cholera poison. The Asylum, it will be remembered, was surrounded by Cholera in its greatest intensity.

Our experience in private practice was very similar to this. Believing that Cholera is a contagious disease, we as long ago as 1820 came to the conclusion that currents of fresh air, not loaded with contagion, should be constantly invited through every part of dwellings, day and night, (should the pestilence prevail in warm weather,) for the purpose of displacing the impure atmosphere and supplying one more fit for inhalation.

During the prevalence of Cholera in '49 and '50, my own house was constantly ventilated. When it rained, the Venetian blinds were closed, but the windows were never down. I have sometimes attributed the escape of my family to this circumstance. It was my constant advice to friends and others relying upon me for professional services, to pursue the same course. This advice was followed by many and in all the families which I had been in the habit of attending before the invasion of Cholera, there were but two fatal cases. One of these had taken some of the quack specifics for the purpose of arresting the disease, and was collapsed before I was called.

Of all the other causes of mortality, independent of the inherent force of the pestilence, we shall not attempt to speak. We shall, however, show that much that was said, much that was done, and much that was not done, in the way of medical treatment, contributed largely to this result, especially in '49. Long before the pestilence reached us, the empirics of the city, and indeed of the country in general, saw that much might be obtained by the sale of specifics for the cure of Cholera; and in no place could there have been more of the peculiar bloviating that precedes calamity in the way of an expected pestilence, than in Cincinnati. There was not only the inflated advertisement, but there was the editorial puff in behalf of particular nostrums. But few knew anything of the corrupt springs that gave rise to these recommendations of quackery and quack medicines. After specifics came a host of empirics of various grades. The old followers of Samuel Thompson had become so far enlightened as, in their own estimation at least, to have made discoveries which their founder's penetration had not enabled him to reach. They had, anterior to '49, established a school of medicine which professed to teach much that was before unknown, but which still adhered to many of the absurdities of Thompson. In the hidden virtues of various remedies revealed, or to be revealed, only in the teachings of one Beach, of New-York, they placed the utmost reliance. After these came the Homœopathists, whose demands upon public credulity were even greater than their brethren just named, and whose audacity and falsehood have seldom been equalled, and certainly never surpassed, by any horde of quacks whatever. To them much, very much, of the mortality in the city must be attributed. This is particularly true of the German population. There, sugar powders were everywhere met with, and on

more than one occasion the vial containing camphor pellets was found in the death-grasp of the collapsed patient. Among the *rich vulgar*, too, this humbug did much to bring about fatal results; so determined were they in their infatuation, that they not only depended upon these pretended remedies themselves, but evinced their want of delicacy by thrusting them upon others.

Instances of this occurred in my own practice. In June, '49, I attended a child four years of age, in whom Cholera was preceded by an attack of Measles. This patient lay longer without pulse at the wrist, or nicturition, than any patient I saw during the continuance of the pestilence in either year. I was frequently asked my opinion as to the result, and of course replied that there was but little ground for hope. Under these circumstances a friend of the family insisted upon discharging me and calling in a Homœopathist. My reply was, "Wait a little; possibly this man may himself have need of his quack, when we shall see what Homœopathy can do." My patient recovered, and soon after this officious individual fell a victim to the disease under the hands of his Homœopathist.

It will be seen, hereafter, that the published reports of mortality are not to be relied upon; so that when we state that quackery was the cause of not less than two thousand deaths, it must be borne in mind that not much less than six thousand died of Cholera during '49. In the succeeding year, also, many died from the same cause. Many lives were wantonly thrown away for the mere purpose of seeing what empiricism could do. Often the alarm of the moment was the occasion of patients being thrown into the hands of quacks. A melancholy instance of this occurred in my own practice. A German lady seven months advanced in pregnancy was taken with Cholera. We prescribed for her and an hour or two after our first visit we informed her husband that the symptoms of Cholera were not severe, but that, owing to her situation, he must prepare himself for the worst consequences. This statement caused an effort on the part of the *reformers* (?) to take the patient out of my hands, and on my next visit we found that a quack had been called and had given medicine, which appeared to be the common *volatile liniment*. We were urged to prescribe also, but declined. In thirty-six hours the woman died under the care of the quack and an old woman. Labor had supervened before death, and the head of the fœtus was projected through the soft parts. In this position it was per-

mitted to remain, and in this revolting condition both were consigned to the tomb. Could the heart bleed for any barbarity, it would certainly be for the perpetration of such acts as this. Wrongheaded *reformers* were everywhere to be met with; on the street, in the coffee-house, in the halls of justice and in the church. They but too often insinuated themselves into the sick room, where they manifested an equal want of judgment and of common politeness. It is impossible to enumerate the various maladies that passed with these people for Cholera—neuralgia, rheumatism, headache, pains of the loins, want of appetite, and diarrhœa of all descriptions, were either Cholera, or, in the language of the quack, *Cholerina*.

In the consideration of quackery as the cause of a great mortality, we come very naturally, as closely connected therewith, to the means adopted by the city authorities for the purpose of mitigating the violence of the epidemic—measures which it was supposed, at one time, would be successful in warding off a visitation of the disease, but which had certainly little effect of that kind, if indeed they did not aggravate the evil.

On the 8th of December, 1848, the Board of Health reported to the City Council on the subject of the expected invasion, making some suggestions as to the proper course to be pursued, and requesting that power be given them to enforce the cleansing of the city, and to establish hospitals if they should be needed. This report closed with the singular remark that "Cholera, it is encouraging to know, is no longer considered contagious."

Before another meeting of the Council, the news of the arrival of Cholera both at Staten Island and New Orleans, had been received, and had occasioned, as has been said, considerable alarm. Yet, notwithstanding the arrival of two suspicious cases on the 25th of December, and their death on the following day, the Board of Health reported that the pestilence was not yet upon us, though they still urged the Council to take action in the matter. *One thousand dollars* had been appropriated to aid the Board in making the necessary sanitary regulations—a small sum truly, if we take into account the magnitude of the work to be done. On the 27th, an ordinance supplementary to one enacted in '32, gave to the Board the power to establish hospitals and adopt other measures for the prevention of disease, but prohibited them from establishing quarantine! Soon after this, the Board rented an old frame house on Fourth St., in the very midst of the city,

for a Cholera Hospital. This house was small, and badly ventilated. But little more was done during the winter. Physicians were required by ordinance to report all their cases to the Board; a requisition, as we shall see, not generally complied with. On January 2nd, seven cases of Cholera were reported. Of these, four were from a steamer direct from New Orleans, three originated in the Commercial Hospital, and one case was taken from the *Wetzell*, five days from Wheeling, and lying at our wharf two days before the occurrence of this case. The cases from New Orleans died soon after admission; the others lingered, but one or more died in a short time. The case from the *Wetzell* proved fatal in seven hours. The Board, in their report of this date, state that they "do not see, in the occurrence of a few cases of Cholera originating here, any cause for apprehension or anxiety, or any reason to suppose that the dreaded pestilence is upon us as an epidemic at this time, or, indeed, that it will be." This was, no doubt, written with strict regard to the truth; for the disease was, certainly, not then upon us as an epidemic, nor for months afterwards; and, probably, at no time during the prevalence of the disease could it be called an epidemic, in the ordinary acceptation of that term; for, unlike ordinary epidemics, the disease crept over the town rather slowly. When preying upon the vitals of one district, it had generally either subsided or not made its appearance in other portions of the city. On the 20th of January, the Board reported that there had been about twenty fatal cases in the city, and that one third of these had originated here. On the twelfth, the Health Officers were directed to employ the sextons of the different burying grounds to report daily the number of interments from that disease, as well as those from Small Pox. On the 17th, as before stated, the Board determined to make no more reports, very few cases having occurred since the 12th.

On the 3rd of May, the Board met again, and to this meeting sixteen cases were reported as having occurred since the last report, on the 17th of January; seven of these were from the city, and three were received into the Commercial Hospital. Of the number of fatal cases we are not informed. On the 10th the reports of the Board were resumed, twenty-four deaths having occurred the day before. A. M. Johnston, M. D., was appointed physician to the Cholera Hospital on Fourth St., and regular reports were again requested from the physicians of the city. Here, as it seems to us, that honora-

ble body committed a great error; empirics as well as physicians were allowed to report. It should have been obvious to that body that this permission would at once lead to difficulty and confusion. Physicians were not likely to comply with an order which placed them on a level with men whose knowledge of the disease was too limited to diagnose a case of Cholera correctly. It should have been considered by the authorities that quacks are either knaves or fools, and, therefore, not fit subjects from whom to elicit truth. Even keepers of coffee-houses were required to report the number of cases occurring in them; but they, too, refused to obey the mandate. A quack was sued for not reporting his cases, to the no small gratification of the people, who now began to manifest a disposition to take the direction of sanitary affairs out of the hands of the doctors, having seen enough in the newspapers to convince them that *they* were the proper persons to grapple successfully with the enemy.

On the 15th of May the Board devised a new method of ascertaining the number of deaths. This was the appointment of an agent, who was to know daily the number of interments in each graveyard; but this plan failed on account of the unwillingness of sextons to report to this agent the true number of interments. In one instance, where the authorities reported only forty as occurring on one day in two cemeteries, he found, by inquiry at a gate through which the funerals were forced to pass, that the actual number was sixty-four.

At this time, Prof. Drake was appointed consulting physician to the Cholera Hospital on Fourth St. It now seemed probable that this establishment would be conducted in a manner creditable to the city, and advantageous to the unfortunate inmates. But alas! the hope was a delusive one, for the excitement in favor of empirics now ran mountain high. The incessant bloviations of these ignorant pretenders had greatly increased their popularity as Cholera doctors. The opinions of physicians were little sought after by the masses, and a majority of the City Council evidently thought themselves more capable than the most learned physicians of judging what would avert the impending blow. Now the Council had much in their power; the indigent sick being forced to submit to their dictation, whether for weal or for woe. Occupying, in their own eyes at least, an eminence from which they could dispense blessings and give new impulse to the recent wonderful improvements in medical

science, this body, on the 24th of May, decreed that the old Board was no longer a Board of Health, and that another should be constituted, more congenial with the progress of the age, and with the wants of the people. The medical profession was to have nothing to do with this new organization. Its members were to be taken from the ranks of the masses, the principal qualification required being a belief in quackery, and a disposition to go for *radical reform* in the management of this new disease, which had hitherto proved so fatal, but which, as the result of the measures now to be adopted, was to be converted into a harmless brush sweeping away only the weak, the intemperate, and those who would not swallow Homœopathic powders, or smell a camphor vial once in fifteen minutes, for the cure of profound calapse. Or, in case of the failure of such powerful means of cure, the milder remedies of the steam doctor, in the shape of *Number Six*, black pepper, salt and vinegar, or the tincture of *Xanthoxylum* were to prove wonderfully efficacious.

The new Board was eminently fitted, both by education and intellect, to carry out these views of the City Council. Among its elements were one lawyer, one editor, one dealer in spirits, one preacher, and one mechanic. The majority were in favor of quackery, and, of course, soon made a clean sweep of the medical attendants at the cholera hospital. Dr. Drake was no longer to consult with the resident physician, who was himself forced to give place to an *eclectic* empiric, who had recently been a preacher, but, having broken down in that line, had become a swaggering quack doctor. One, and the most sensible, act of the Board, was the appointment of S. H. Smith, M. D., as Health officer, a gentleman well qualified for the place, who did much by which we gain an insight into the system of humbug pursued by the authorities. Dr. S. kept a record of the fatal cases at the cholera hospital, and of the number admitted and discharged. It is to be regretted, however, that one or two points of some importance are not clearly set forth in his report, as, for instance, the kind of patients received, and the actual number affected by cholera. Probably delicacy on the part of the Health officer, prevented these distinctions from being made. Enough has leaked out to justify the conclusion, that patients were admitted as laboring under cholera, whose diseases were of a very different character; indeed, it has been confidently stated that more than one drunken man found his way there, and was treated for cholera.

The empirics complained much of the authorities who had the control of the Commercial Hospital, as well as of the poor in general, for sending them patients dangerously ill, instead of taking them to the last named institution. The trustees of the Commercial Hospital, finding it was not the object of the establishment on Fourth street to receive cholera cases as they might come, but on the contrary to take such only as might be selected with a view to curability, avoided, as much as possible, sending them patients at all. After contending in this manner for some time with the officers of the poor, the individuals in control of the cholera hospital fell upon a most happy expedient for getting rid of collapsed patients. This was the establishment, by the Board of Health, of another cholera hospital, over which Dr. C. H. Raymond, a regular and accomplished physician, was, on the 13th of July, appointed superintendent.

The cunning that prompted the establishment of this new hospital was at once made manifest; for on the very first day, six patients were received, all of whom were in profound collapse at the time of admission. Of these, two died in four hours, and at the end of ten hours all had succumbed. Twenty other cases of cholera were admitted, of which ten died; making in all sixteen fatal cases, all of which were collapsed when admitted. Of those cases not collapsed, there was no death. Twenty patients were admitted who did not labor under cholera; of these but seven died. Now it is somewhat singular that, while there were received into this establishment twenty patients who, in the opinion of Dr. Raymond, did not have cholera, every one of those received into the Fourth street Hospital were, according to the reports, affected by the epidemic. It may thus be seen how easy a matter it is for the dishonest to deceive those who will not carefully investigate for the purpose of knowing the truth.

On the 11th of July, two members of the Board of Health reported to that body that there had been a cholera hospital established in the First Ward, in which one death had occurred. This was the only notice taken of this most benevolent institution, put into operation by the wealthy citizens of that ward, aided by the humane of all classes. This hospital had its origin in the simple desire to do justice to the sick, on the part of the citizens of the First Ward, to whom it was apparent that the miserable establishment on Fourth street was inadequate to the wants of the city, and that it was under the direction of ignorant or knavish quacks, whose

object was the advancement of quackery rather than the care of the sick or an honest report of their success. Hence their charity was silent, but efficient. The First Ward Hospital was fitted up out of a carpenter shop, with additions. The location was a fine one, the ventilation superior, the nursing good, and the medical attendance excellent. Two medical gentlemen who had a year or two before retired from the practice of their profession, volunteered their services as consulting physicians, and Dr. Caroland was appointed house physician. All these gentlemen performed their duties with fidelity and skill. Let us examine now into the success of this establishment in the mitigation and cure of cholera, as compared with that of the hospital on Fourth street. At the former there was no sending away of patients, no selecting—all had admittance, without regard to the intensity of the disease. Yet of the fifty six patients admitted into the establishment, but fourteen, or one in four, died; while the hospital on Fourth street, notwithstanding the establishment of Dr. Raymond's hospital for the reception of their collapsed cases, and notwithstanding the fact that probably not more than one half or two thirds of their cases were laboring under Asiatic cholera, had a mortality of a little less than one in 2.5.

That our readers may have a correct idea in regard to the superior efficacy of quackery in the treatment of cholera, let us compare the mortality at this establishment with that at the Commercial Hospital. The latter institution is a poor place to test the proper treatment of any disease. The house is badly constructed for the comfort of patients, the windows are small, the stories low, the wards crowded, and the medical attendants too few, and, it is to be feared, too often inexperienced; for, though the Faculty of the Ohio Medical College are physicians to the hospital, they, in general, visit the house but twice per week. Of course the house physicians may be considered as holding the destinies of the sick in their hands. Aside from the disadvantages we have named, there never has been a possibility of proper ventilation, and even what might have been done has been but partially effected. Yet, notwithstanding this state of things, and the fact that all cases applying for admission were received, there were, out of 144 actual cases of cholera in this institution, but fifty six deaths, or a little less than one in 2.5, the mortality being no greater than that in the Fourth street Hospital, where every kind of dishonesty was practiced for the purpose of showing a large per cent of cures. So much for *medical reform* under the patronage of the Board of Health.

The pest-house was also used for the admission of cholera patients. The cases received here were those occurring amongst the colored population. We are, however, unable to speak of the mortality at that point.

During all this time no steps were taken by the Board for the prevention of public processions or of crowded assemblies. Indeed, it seemed never to have entered into the heads of the new Board that any such regulation was necessary; or, if necessary, that the sovereign people, whose pleasure seemed to be their sole object, would submit to it. And yet, judging from what we observed, we have no doubt that a large majority of our citizens would have given their consent to the closing of all places of public resort excepting the churches, and that the clergy, if requested, would have given up evening meetings. The Board, however, did not think it worth while to make the attempt. The common schools were not closed till some time after the invasion of the pestilence, and in consequence children were more than once carried home from school in a dying condition. The Catholic population, in particular, continued to attend church and to comply with all the rites of their religion with the same punctuality, and even increased devotion, during both these years. For some time after the onset of the disease in '49, their dead were constantly taken to the churches, and the usual ceremonies of their faith performed; and it was only after the fearful mortality of June, when the Catholic population had been so much exposed to the poison of the malady as greatly to have contributed to the spread of the disease, that the custom was given up.

Another of the causes which led to the same end, and which might have been arrested to some extent, was the constant habit amongst the more ignorant of this class, of watching with the dead. No fatality seemed to have any influence in inducing them to dispense with this custom, equally opposed to reason and to common sense. In this manner great exhaustion, often intemperate drinking, and consequently great mortality was brought about. Next after the Catholic, the Protestant German population suffered most; and next after these, the Welch congregations; at least I think this was the case. Then came the various Protestants recently from Europe, and after them possibly the Methodist church. After these came, in the orders in which they are named, the Universalists, Presbyterians, Swedenborgians and Unitarians. This last society, it is thought, suffered but little.

A marked exemption from cholera was found in the Society of Friends, as there was not in that body, during the whole of '49, a single fatal case; and but a single one in 1850, which seems to have been brought about by a reliance on quackery. It is well known that the members of this society nearly altogether avoid crowded assemblies, go to meeting but once on Sundays, stay but a short time, never give way to much excitement; and that their meetings for worship are comparatively small, except on rare occasions. At home, they live in a simple but most healthful way; every portion of their dwellings bears the impress of cleanliness, and all their habits are regular when compared with those of the world in general. This exemption from the fatal effects of cholera has, we presume, distinguished this class throughout the world, though probably not to the same extent as here.

By reference to such facts as these, we may form some idea of the amount of disease and death resulting from another omission of the Board. We mean the almost total neglect of the condition of privies and other places equally loathsome. The White Water Canal for instance, as well as Deer Creek Valley, though in a condition demanding sanitary regulation, received no attention, and the stagnant water in various portions of the town but very little.

We are unable to see, too, why the Board did not, at the very outset, establish a cholera hospital at some convenient point below or above the city. All the sick arriving in steamboats might have been transported there immediately without entering the city at all, instead of being carried through the densest part of the city, a distance of one or two miles, to the Cholera or Commercial Hospitals or the Pest House. We think, too, that the reader will agree with us that patients on the verge of collapse, or actually in that stage of the disease, would have had their comfort and chances of recovery much increased if conveyed to such a hospital in row boats properly sheltered, instead of being forced to ride a distance of one or two miles, in a sitting posture, subjected to the horrible jolting of the drays, carts, and wagons, in which they were generally conveyed. But so determinedly were the members of the Board of Health opposed to a belief in the contagion of cholera, and to all prudence that looked toward saving the city from a severe visitation, that all remonstrances against the admission of such cases to the city were useless.

The individuals who composed the Board of '49 were con-

tinued in office during 1850, and, we believe up to the present time. This apparent confidence of the public in the Board seems to have had the effect of bringing them to the conclusion that they had accummulated enough wisdom to carry them through another invasion of the cholera without the aid of a Health Officer. They, however, on July 1st of the latter year created a new officer, whose duty it was, not to act, think and recommend; but to gather up certain information which was to be food for the reflective powers of the various wiseacres of the Board. This officer was styled by that honorable body *General Out Door Agent.* On the 3rd of July they reported that they had been advised of about twenty deaths from cholera within the preceding 48 hours. It had been stated on the 1st, however, that *there was no cause for alarm*, but still it was recommended that the citizens should be calm, and that they should be careful in their diet. But, as in the preceding year, no advice was given against night exposures, crowded assemblies, or street processions.

We think enough has been said of the action of the city authorities to warrant us in placing it, as we have done, under the head of causes which contributed to the spread and mortality of cholera; and that those who escaped were not indebted to the Board of Health, but to their avoidance of the improprieties above referred to. The advice of Dr. Drake—all of which we approved, excepting that of keeping bed chambers closed during hours of repose—no doubt did much good. Much was done, too, in a private way towards mitigating the horrors of the pestilence. The *Cincinnati Relief Union*, especially, deserves to be mentioned as rendering most efficient aid. This benevolent society, first proposed and mainly put into execution by the lamented James H. Perkins, aided, however, by many other philanthropists of our city, did much to relieve the sufferings and lessen the mortality amongst the poor. No class of persons was neglected by this humane body. In my daily rounds it was often my good fortune to meet with many of its members, acting the part of the Good Samaritan.

We come now to consider the influence of atmospherical and thermometrical changes upon the propagation of cholera, and in speaking of these supposed causes I shall not rely upon my own observations merely, nor be governed by the wild fancies of others, but shall proceed upon undoubted facts kindly furnished by Prof. Ray, of Woodward College. This gentleman observes: "So far as my observa-

tion extended, the weather seemed to have no influence. In one instance, a change from warm to cold seemed to increase the disease. On the night of July 1st, '49, there was a heavy rain (1.71 inches) accompanied by thunder and lightning; this was followed by four days of remarkably fine weather, yet the cholera raged with awful fatality. One of these days was noted for the greatest number of deaths during the prevalence of the epidemic."

The following table compiled from two others kindly furnished by the same gentleman, gives the temperature and the quantity of rain of the four succeeding months in 1849, as compared with that of the same months in 1850. The mean temperature of the past 16 years is also given, with the mean quantity of rain during the same period:

	May	June	July	August.
Mean temperature in 1849	63°.9	73°.9	73°.7	73°.5
Same 1850		73°.26	81°.65	78°.26
Same in last 15 years	63°.6	70°.9	75°.4	73°.1
	inches	inches	inches	inches
Rain in 1849	3.61	4.90	8.90	4.41
do 1850		5.00	6.30	7.20
do Mean amount last 15 years	5.02	5.43	4.58	4.47

Prof. Ray remarks: "The mean temperature of June, 1850, will be observed to be 2 degrees above the average of the last sixteen years.

"The mean temperature of July is 5.8 degrees above the average for the last sixteen years, and is 2 degrees higher than that of the warmest month in the same period.

"The mean temperature of August is 4¼ degrees above the average for the last sixteen years.

"The mean temperature of the three summer months, in 1850, is 77°.72, which is 4°.18 higher than the mean temperature of the same period in the last sixteen years. It was the warmest summer in that period.

"The amount of rain in the summer of 1850, was 18½ inches, which is about 3¾ inches, or one-fourth more than the average."

In July, 1849, it seems that the mean amount of rain was greater than in any other July for fifteen years, or at least nearly double as great as the mean amount during that period. The greatest mortality occurred during the first five days of

this month. On the first, there was a heavy mortality and a heavy rain, (1.71 inches,) but the greatest mortality took place on the 4th, for on that day the reports gave 137 deaths from cholera, the whole mortality being 175; while out of 183, the total mortality of the preceding day, there were but 130 from cholera. In the meantime, there was no rain from the 1st to the 6th, when it rained heavily (1.31 inches.) The fatal cases reported on this day were 91, and on the 7th, 85. Although rain continued to fall for four days in greater or less quantities, and on the 8th in great amounts (2.18 inches), the pestilence seemed less severe at the conclusion of the rain than at the beginning; for on this day the deaths numbered only 74, while on the 13th, there were 112, and on the 14th, 101. We must admit, however, that the epidemic had reached its greatest height on the 4th of July, and that by the 25th it had begun to decline. But taking a retrospective view, we find that it had accumulated great force on the 20th of June. Indeed, my own opinion is, that it was nearly as fatal on the 15th of that month as at any other time. The imperfect nature of the bills of mortality at the beginning, prevents us from obtaining the exact truth in this matter, however. In August, 1849, there was very nearly the same mean temperature and quantity of rain as in June. In the latter item, they were both a little below the average of the last fifteen years, so that there seems to be no reason here for supposing that either the temperature or the amount of rain that fell, could be the exciting cause; for though the disease still lingered in August, the mortality was much less than in June. Neither could the amount of rain in July have been the cause of the great mortality in that month, as the largest fatality occurred in the beginning of the heavy rains.

Comparing July '49 with July '50, the mortality of the latter year should have been much greater than in the preceding one—that is, if extreme heat could decide the matter; for we find the mean temperature more than 8 degrees higher than that of '49. Yet the fatality of the disease was not so great, or rather, the number of cases was much less. It will be seen hereafter, however, that the cases which did occur in '50, particularly those in a collapsed state, were less under the control of medicine than those of the former year. There was but little difference in the June of the two years, either in the quantity of rain or the temperature, yet the mortality of June '49 was appalling, whilst in '50 we were almost exempt from the malady until the approach of July. But a

comparison of August in the two years is more conclusive than either of the others. In the latter year, the temperature of this month was five degrees higher, and the amount of rain nearly two-thirds greater than in '49; yet we find the Cholera almost extinct in '50, whilst in the same month of the preceding year, it still continued to destroy, though much mitigated in violence.

We have endeavored to ascertain whether the direction of the winds had any influence in accelerating or retarding the disease, but have been unable to discover that any change was caused from this source. On the 1st of July, 1849, the wind was from the North. By the 4th, the period of greatest mortality, it had shifted to the East; nor was there any perceptible change for the better on the 6th, when it set in from the South, and continued for some days in the same direction.

A non-professional gentleman of this city took it into his head that the use of limestone water was the cause of cholera, not only in Cincinnati, but throughout the world; and this theory, like many others, of course, has its advocates. It seems not to have entered into the conceptions of the main propagators of this notion that men have drank limestone water from the creation of the world, without, until a comparatively recent period, suffering from Asiatic cholera. It has been asserted that in this city those only who used this kind of water were obnoxious to the cholera; and facts have been cited in proof of this assertion; but facts, equally striking, have been left out of view.

It has not been stated, for instance, that on Rittenhouse-street, where the heaviest mortality occurred, there was but one well—that but very few families used water from it, and that in those families there was but one death; while all the other citizens on that street used rain water. It should be remembered, too, that on Front-street, above the depot of the Little Miami Railroad, where the mortality was very great, water from the Ohio river was invariably used for drink. Numerous other facts, in reference to the epidemic in other countries, completely overturn the limestone theory. The inhabitants of Yucatan depend almost entirely upon the clouds for their supply of water; and yet the cholera, in 1849, made fearful ravages there. After cutting off at Campeachy 4000 persons, it spread from that ill-fated city along the great highways of that peninsula, visiting with fearful mortality, both town and country.

For the purpose of putting this matter forever at rest, I here quote the greater portion of a letter from Wm. Trevitt, M.D., of Columbus, O., to Professor M. B. Wright, of this city, who kindly offered to obtain for me the information which it contains. Dr. T. was surgeon to our army of occupation in Mexico. Speaking of cholera, he says:

"I believe it was first proclaimed to have made its appearon *Staten Island*. Its next announcement, and almost simultaneously, was at *Port La Vaca, Texas*, among our troops recently arrived there. It was almost universal in its attacks, and most alarmingly fatal. Lieut. John Trevitt was here, I think, in command. He informed me that he escorted these recruits as fast as possible to the interior, to the neighborhood of *San Antonio*, where it was supposed to be more healthy; but the mysterious scourge accompanied them, and did not stay its hand till it had cut down officers and privates, from the highest to the lowest, regardless of rank, and irrespective of service; not even sparing the flower of the army—the bravest of the brave. The gallant Worth, and many other distinguished spirits, who had stood unscathed through all the war, and whose familiarity, in the tent and upon the battle field, had taught them to laugh at Death's grimaces, here fell victims to this their inglorious foe.

"With the exception of rain water, not a drop suitable for use can be found for many miles around *Port La Vaca*.

"Closely following this attack upon our soldiers at *Port La Vaca*, we find the cholera at *Brasos, Santiago*, a small island, not very unlike in its formation and general characteristics, to *Galveston*. Not a drop of water suitable for use, except what falls from the heavens, can be had short of the mouth of the *Rio Grande*, about three leagues distant. This island was occupied during the Mexican war, as a military post; and as such, was of considerable importance.

"At the time the cholera manifested itself here, there were some two hundred people upon the island; nearly all of whom suffered from this disease, and more than one half died!!

"At *Point Isabel*, a short distance from the above island, none but rain water is ever used—none has been found nearer than the Rio Grande. There the cholera was not less prevalent, and was equally fatal as at *Brasos Santiago*.

"At the time alluded to, there was a considerable village at the mouth of the *Rio Grande*. Here river water is substituted for rain, for use. As before remarked, there can be but

little lime in this water. I never discovered it in the culinary utensils in which it had been boiled. The inhabitants along the whole river use it for washing clothes, for which it answers an admirable purpose.

"At this point, (the mouth of the *Rio Grande*,) nearly or quite half of the inhabitants died of the cholera.

"At *Fort Brown*, (Brownsville,) the first port above the mouth of the river, and opposite to *Matamoras*, the fatality was not less than at the places before-named; and its ravages at *Matamoras*, where sixty ot seventy died per day, till the city, numbering some ten thousand inhabitants, was, between death and flight, almost entirely depopulated.

"I will not occupy time in the further pursuit of our unseen foe, but will say, in conclusion, that every town or military post, for many hundred miles upon the river, as well as points at a distance from it, suffered in the same or a like ratio, whether occupied by Americans of the North, Mexicans of the South, or the native Indians. All fell alike prostrated upon the approach of this invisible pestilence."

Now, if we review the ground we have gone over, it will be seen that the pestilence walked abroad without paying much attention to the condition of the weather or the water; and that, although the other circumstances we have named, such as filthy habits, ill ventilation, exposure to the hot sun, and intemperance, are undoubtedly to be considered in the light of auxiliary causes, yet, as there was nothing in these peculiar to the year of its greatest fatality, it is evident that we must look in some other direction for the primary cause of its origin and propagation. And this in our opinion can only be found by supposing the existence of an animal poison, something generated in the animal economy, and spread abroad by exhalation, expiration, secretion, or excretion.

Various theories, as we have seen, have been invented to evade the necessity of adopting the belief that cholera is contagious; but the opponents of this view have, as it seems to us, signally failed to assign any other plausible explanation of its dissemination. Instead of showing any true reason for their faith, they have been more disposed to attack the doctrine of contagion by ridicule. And not unfrequently they have rendered themselves ridiculous by adducing theories so nearly allied to the one they oppose, that men of considerable discrimination are unable to perceive the difference.

A theory of this character has enjoyed considerable popularity, and has been dignified by the endorsement of a chair-

man of the Committee of Practical Medicine of the American Medical Association. We refer to the doctrine that cholera is a portable, but not a contagious disease. The learned chairman says emphatically: "We believe that cholera is *portable*, but not *contagious*."

Now, to one who reflects with care upon the meaning of the terms portable and contagious, the absurdity of proposing this theory as explanatory of the diffusion of cholera in opposition to that of contagion, must, we think, be apparent. Portable is simply capable of being carried from one place to another. In saying, then, that cholera is a portable disease, the learned chairman can only mean that the specific poison, or virus, or influence, causing the disease, can be carried from place to place. This, it will be seen, concedes the whole question at issue, by admitting the existence of a specific poison. Can this poison be communicated from one person to another? If so, the disease is contagious. It is always to be regretted, that when we have long been in error, our pride should be the means of precipitating us into a still more ridiculous position; and this, it seems to us, is the very predicament that the friends of the portable theory have got themselves into. For if this portable poison is not communicable, how can it be considered as accounting for the spread of the disease? It is clear, that in addition to the property of portability, it must possess a power of diffusion and a power of inducing disease, before it can be considered an exciting cause of cholera. A hogshead of sugar is portable, but when it arrives in port it is still a hogshead of sugar, and not capable by its mere virtue of portability, of producing any effects whatever.

But how do we know that cholera is *portable?* From having seen, felt, and weighed it; or rather from having witnessed its effects in causing disease? If the former, the theory of portability is certainly proven, but fails to account for the dissemination of the disease; if the latter, it demonstrates very clearly that Cholera is contagious; so that nothing is gained in favor of the anti-contagious view by the theory of the committee.

The very fact of the conveyance of Cholera from place to place, settles the matter in favor of contagion, with the exception of the mere possibility that animalculæ are the medium of its conveyance. This latter notion is somewhat plausible, we must admit. Sometime in the winter of 1849–50, we had the pleasure of hearing Prof. Drake declare, in

one of his lectures, as his opinion, that Cholera was not contagious, but was propagated by animalculæ. He stated, at the same time, that he had as long ago as 1833 given this as the probable cause. And yet we have as great or even greater reason for believing, that all diseases are propagated in this way, as that Cholera is; and we learn from Defoe that the plague in London, in 1665, was attributed to this cause.

It is well known that Cholera is not arrested in its progress by opposing winds, as it has occasionally made its way directly in the face of trade winds for hundreds of miles. Now, if animalculæ are the cause of Cholera, one would think this would be a difficult matter, and that to brave the blasts of the *monsoon* would be out of the question. But admit that animalculæ are the cause of the propagation of Cholera, and it only proves that the poison is of animal origin; that it grows up in the animal economy, is nurtured there, and becomes a poison to other and healthy bodies. The composition of the poison is immaterial; it is enough to know that it is a poison capable of reproducing itself to any extent.

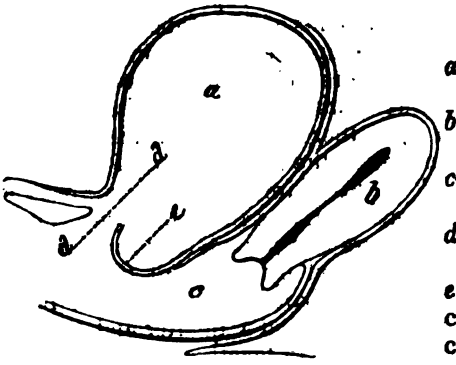
To be continued.

Vesico-Vaginal Fistula complicated with Vesical Calculus. Cured by operation. By W. H. Mussey. M. D.

Mrs. M., 24 years of age, was confined in September last with her first child. There was no discharge from the bladder till two days after the labor had terminated, at which time a very large quantity of water came away "*suddenly.*" The discharge continued to be free, but uncontrollable, causing excoriations of the vulva. After attending three weeks, the physician made an examination, and discovered an "ulcer" on the anterior wall of the vagina. Three weeks later a fistulous opening in the Vesico-Vaginal wall was observed, and in November last, three successive attempts were made to remedy the calamity by operation, with only partial success.

On March 16th, I examined the patient and could pass my fore-finger into the bladder, and proved the fistula to have a diameter of thirteen sixteenths of an inch. The urethra was cut off from the bladder, excepting a strip of the superior wall, about the sixth of an inch in width.

The following diagram exhibits the position of the fistula, and will indicate the nature and extent of the operation required.



a—Bladder.

b—Uterus.

c—Vagina.

d–*d*—Fistula.

e—Pouch which contained the Calculus.

At the second interview with the patient, she informed me that there was a stone in the bladder, which was readily perceived on the introduction of a sound.

On the 20th of March I proceeded, with the instrument of Mr. Civiale, to crush the stone. Several fragments were removed through the fistula, but owing to the position of the Calculus, in the pouch *e*, and the contraction of the bladder from the impossibility of keeping it distended with fluid, it was feared the manipulations would cause too much irritation, and the completion of the operation was deferred. In the course of this operation, some *fibres of cotton* were removed, indicating the character of the nucleus. The patient, on coming out of the anaesthetic state, informed us, that when the "ulcer" was discovered, a lock of cotton, medicated in some way, was applied, and she "*never saw it afterwards.*" The next day several small fragments of stone were discharged, and on the second day, a lock of cotton with fragments of stone attached, passed through the fistula. This nucleus, after being dried, was one inch and a half long, the greatest width five-eighths of an inch, and in thickness one quarter of an inch; the calculous coating was one-eighth of an inch in thickness.

The bladder was repeatedly washed out with tepid water, till it was evident no more fragments of the calculus remained, as none could be detected by the finger in the explorations.

On the 10th of April I attempted the closure of the fistula.

In order that the patient should have the benefit of the anaesthetic state, she was placed upon her back. The hips were elevated, an assistant on either side supported the limbs, and held away the vulva, another assistant depressed the perinœum; for these purposes the instruments of Mr. Jobert de Lambelle, (of the *Hotel Dieu*) were employed. The mucous surface of the vaginal wall, for half an inch in width around the fistula, (including its edge,) was scarified, and the stitches entered one-third of an inch from these scarifications, including the muscular, without penetrating the mucous coat of the bladder. The "Clamp Suture" of Mr. Sims, of Georgia,* was employed to hold the freshened surfaces in apposition. Threads of silk, (five in number) were first passed, then the silver wire was drawn through and fastened by means of the perforated shot, to slightly curved leaden bars one eighth of an inch in diameter, the anterior being one and a quarter and the posterior one and three quarters inch in length. An elastic catheter was kept in position in the Urethra, by means of tapes attached to a band around the body, the external orifice being depressed by means of a bit of sheet lead, so that the urine could not be conducted back into contact with the wound. This was removed and cleansed twice a day for three days, and after that once a day—the vagina and vulva being cleansed every day with tepid water, by means of a Glister Syringe.

The patient was kept on her back. On the ninth day the stitches were removed, but I was convinced that after the *sixth* day there was no tension upon them. There was a spontaneous evacuation of the bowels on the fifteenth day. On the eighteenth day the catheter was removed, and the patient allowed to rise.

On the twenty-seventh day of the operation, the patient returned to her home perfectly cured, there being no evidence that a particle of urine had passed the wound since the day of the operation.

Cincinnati, May 23d, 1854.

Hermaphrodite.

The existence of such a being is considered altogether fabulous, among the human species, although such anamolies occur often among the lower animals. Instances are on record where partial hemaphrodism has existed, but I am not aware

* Am. Journal Med. Science, January, 1852.

that there are any which present all the distinctive characteristics of such a monstrosity. In all other cases which are spoken of the sex could be distinguished by close examination, but in the one which I am about to speak of, I am not able to ascertain which sex predominates.

This child was born on 28th December, 1853, of healthy parents, and nothing unusual connected with its uterogestation or its birth. Nothing peculiar was observed about it for several days, when my attention was called to to its genital organs by the nurse. I found it had all the organs of the female, that is all external genital organs, vagina, hymen, urethra, and clitoris, which was the shape and anatomical structure of the penis. The prepuce was distinct; the urethrea, and glands-penis were all very evident. This organ was bound down firmly in the upper portion of the vagina by the pressure of the foreskin. The labia were unusually large, and in these could be distinctly felt two well defined testicles. Here we have the genital organs of both sexes well marked: of the female vulva, vagina, hymen, and urethra emerging just above the union of the labia minora, and capable of conveying the urine; of the male, penis with its glands penis, prepuce, and urethra which was a substitute for the clitoris. The penis was bound down by the adhesion of the frenum yet alittle assistance from the knife would be sufficient to render it capable of erection. The testicles were very distinct.

The query is which sex predominates? The essential organs of the male are all here, the external organs of the female are all present and only one evidence wanting to make it the most complete hemaphrodite on record, and that is the existence of a womb, which alone can be determined by a post mortem examination.

Through the kindness of Dr. Crook, Dr. Carey has seen this case. It was surely a remarkable one, and worthy of being looked after. The external female organs were all quite distinct, the lebia majora looked as though they had been formed from a cleft scrotum. From their corrugated appearance he thought it quite likely that they possessed a dartos muscle. The contained testicles were of full size, and could be elevated to the external ring, which was closed. To his mind, the *overa* and not the "womb" would be conclusive evidence of hermaphrodism.

Proceedings of Societies.

Transactions of the "Montgomery County Medical Society."
By H. G. Carey, Secretary, Dayton, Ohio.

The sixth annual session of the Montgomery County Medical Society, convened at the Phoenix House, May 4th, inst., and was organized, the President, Dr. Jabe Hains, in the Chair. The minutes of the previous meeting were read and approved. Upon motion of Dr. Lamme, of Centreville, the Society went into an election of officers for the ensuing year, which resulted in selecting for—

President—Dr. Jabe Hains.
Vice President—Dr. James Crook.
Treasurer—Dr. Joshua Clements.
Secretary—Dr. H. G. Carey.
Censors—Drs. Wm. M. Awl, Clark McDermont, J. A. Coons, J. S. Taylor, J. Davis.

Drs. L. D. Sheets, C. McDermont, and Thomas Brennen, were appointed delegates to the Ohio State Medical Society, for 1854.

Dr. Carey then read the following upon the

Cutaneous Diseases which have prevailed in Dayton, Ohio, during the four months preceding April 30, 1854.

In complying with the resolution passed at the April meeting of this Society, the committee, for want of time, have not been able to collect facts much beyond the range of their immediate observation. As this extends, however, to almost every part of the city and to every class of society, an index to the general character of *cutaneous diseases*, will be found in the following

Report.

During the past four months, there have been about fifteen cases of small pox and varioloid in this city; and according to our best information, two deaths from the former disease. A majority of the cases occurred among the Jews, and did not come under the supervision of regular physicians. These affections were mild in character, and presented little intrinsic interest. In a few instances, a protracted opthalmia has been entailed upon some of the patients, threatening destruction to distinct vision. In some villages and neighborhoods west of

Dayton, small pox and varioloid have prevailed quite extensively of late. In these rural localities, they were only limited by a want of material in which to reproduce themselves.

VACCINATION. Your committee have communicated vaccine disease about four hundred times, since Jan. 1st, 1854. Nine tenths of these cases had never been submitted to the influence of cow pox. But little trouble, as a general thing, was necessary on the part of the physician, to obtain the characteristic pustule in those persons who had not been vaccinated before. Occasionally, however, a person was met with, whose system was proof against the poison. Nineteen-twentieths of the subjects who had not been vaccinated previously, were under twelve years of age. It was rare, indeed, to find more than one or two children in the same family unprotected, who had for any length of time employed a regular family physician. Three, four, and in some instances, as high as half a dozen, were occasionally met with in the same domestic circle, who had never been vaccinated; but without a single exception, these persons had been in the habit of changing their physician frequently, or uniformly patronized irregulars or quacks. Persons of foreign birth were found more uniformly fortified against small pox, and to set a higher estimate upon the protection of vaccination than American citizens. The skepticism of the latter, could be traced directly to imperfections in cow pox poison, or want of proper care and attention to vaccination.

Of those persons who had sought protection, re-vaccination was successful in a greater proportion of cases, during the period under consideration, than usual. Some who had hitherto failed repeatedly in their attempts, took cow pox upon the application of the virus. An explanation of this fact, is found in the existence of an atmospheric predisposition to small pox during the past winter. Whatever favors the propagation of the latter, will also enhance the action of cow pox poison. Variola has prevailed more extensively throughout the United States within the past six months, than at any formor period in the range of medical history.

Cow pox is the mildest form of variola known, and when its legitimate influence has been exerted upon the human constitution, it affords as perfect immunity from the poison of small pox, as this disease does itself. The frequency of varioloid depends upon imperfect vaccine virus. It is not a question of any consideration how the virus is inserted, so that it gains access to the tissues of the skin, and is permitted

to remain. The results will be the same. We have not met with any person whose system by re-vaccination, would not become proof against the poison of cow pox.* In some instances, it requires the matter to be inserted several times. After the first or second operation, however, a perfect pustule can rarely be produced by vaccination. The physical phenomena of a most perfectly formed cow pox pustule, is no safe guarantee that it has afforded perfect protection to the system. Appearances of the most characteristic cicatrix, are equally fallacious. Extensive local inflammation is incompatible with genuine prophylaxis. These cases produce the largest scar. A depressed cicatrix from four to six lines in diameter, with uniform margins, and having its central portion studded over with miniature *pock marks*, is the best presumptive evidence that the constitution of the individual possessing it, is protected against the poison of small pox; yet these persons are often susceptible to the influence of cow pox and varioloid. Occasionally, vaccination does not produce enough local inflammation to leave a relic of its former existence, after a few months, and still exert its specific effects. Revaccination, is, therefore, the only certain test. In a vast majority of cases, the reinsertion of the virus will produce no other results above an ordinary scratch, if the poison was pure in the first instance, and the cow pox pustule permitted to run through its regular stages undisturbed. Another class of persons, though greatly in the minority, are susceptible to the influence of vaccine virus a second, and in some rare instances a third, or even a fourth time. The pustules, in these cases, sustain to the genuine cow pox the same relation that those of varioloid do to true small pox. Vaccination should, then, be repeated as often as the insertion of genuine virus will produce a visicle; after this, such persons will ever remain protected against the contagion of variola. Innoculation will not even produce the disease.

Protection from vaccination does not run out. The molecular change in the human constitution is so slow, that if it is once brought under the influence of cow pox, each new atom of matter on becoming assimilated and deposited as an integral part of the organism, will have imparted to it a principle, exempting the same from the poison of small pox. This is the broad catholic rule, to which there are as few exceptions as any other one entering into the control of nature.

* This remark requires qualification. We know a physician who contracts varioloid as often as he is exposed. Vaccination always takes.

The evidences of vaccine protection are so ample, diversified, and well authenticated, that your committee deem it unnecessary to dwell at any length upon this point, further than to cite a few incidents which have fallen under their immediate observation.

Miss E. W., æt. 10 years, contracted varioloid, and was seen by her physician the morning upon which the eruption made its appearance. The case was well marked, and run through its several stages to convalescence. A younger brother and sister of the patient were vaccinated twenty-four hours after the eruption made its appearance in the latter. The operation was successful in both instances, and the subjects were saved from an attack of small pox. The following case has been kindly furnished by a member of this Society:

Madam H. was seized with discrete variola, and recovered. Her infant, which continued to nurse, was vaccinated after the disease become pustular in the mother. Cow pox and small pox struggled for the ascendency. The former progressed regularly, and triumphed. At the end of the ninth day the child was taken with a high grade of fever, followed soon by convulsions, which lasted thirty hours. The patient finally rallied. There were ten distinct pustules upon the face, in addition to a well formed cow pox pustule on the arm. Query, did the former contain variola poc?

Vaccine virus will lose its virtue after being exposed a short time to the influence of the atmosphere and an elevated temperature. The condition of the poison, will favor this process of deterioration. Small quantities and thin sheets of virus, cannot be preserved longer than a few days, if submitted to a temperature above 65° Fahrenheit, in the open air. This, however, is not the case with matter in the scab, if the pustule which produced it was large and well formed. The external covering soon becomes oxidized, and assumes a light, ashy color; while the interior nucleus will retain its mahogany hue and specific virtue for months. Virus can be preserved much longer in this way, and in a state of greater purity, than on quills or glass points. Dr. Wm. Hendren, who was physician to the Hudson Bay Company, and an extensive colony near Lake Winepeg, for many years attempted to procure vaccine virus from the London Vaccine Institutions, but could never obtain any which would produce the specific effects of cow pox poison. He at length procured a "scab," to use his own language, "carefully rolled up in tin foil, from Canada," which retained its original virtues,

although a greater time had elapsed in the transmission of the latter, than the former.

"Matter" cannot be kept pure in a liquid state longer than a few hours. In the Vaccine Hospital, Brainbridge, virus was taken from a well formed pustule in the arm of a healthy child, on the eighth day, and preserved in glass tubes hermetrically sealed. Forty hours after, the lymph was inserted into the arms of two children, one of whom died of gangrene and the other survivor phlegmonous abcesses of the axilla, elbow, wrist, and other parts of the body. Sir Thomas Wakely and Mr. Wilson examined the pus, and gave it as evidence before the Court of Inquest, "that it had become corruptibly decomposed." A scab was dissolved by water and retained between two glass plates, by a member of your committee, to facilitate vaccination and economise time. The pustules following the insertion of this matter for the first twenty four hours did not present any thing peculiar. Those persons who were vaccinated after this period had extensive inflammation of the arm surmounting the point of insertion, extending in some instances to the shoulder and hand; and the glands of the axilla were much swollen and painful, accompanied by a high grade of inflammatory fever. In some instances sloughs half an inch in diameter formed in the site of the puncture, associated with erysipelas of the extremity. Cow pox poison can be preserved pure almost indefinitely, in the eschar, if properly excluded from the atmosphere. This may be done very perfectly by enveloping it in gutta percha rendered plastic by hot water. After this is done, the exterior of the mess must be fused to close securely any fissures that might otherwise remain.

As long as cow pox matter possesses the ability of producing a visicle from the third to the fifth day, and a distinct umbilicated pustule in six days thereafter, its protecting power against variola is just as perfect as though the poison producing it had been obtained directly from the cow. If its virtues have become enfeebled by age, passing the virus through the constitution of a healthy child will restore its power. If proper care and attention be given to the selection of subjects, cow pox poison may be reproduced in the human constitution, *ad infinitum*.

In several instances during the past season, the visicle did not make its appearance until the eleventh day after the insertion of the virus. But upon the day, designated above, a minute point made its appearance and was followed by all

the physical manifestations of genuine cow pox. I have never seen pustules more characteristic. The virus from these pustules produced the usual phenomena of unadulterated vaccine virus in other individuals, and at the regular time.

A vesicular eruption attended vaccination in several instances. The vesicles were situated upon inflamed bases, and scattered over the entire body, some of which became as large as a split pea. The eruption usually made its appearance on the eighth day after the insertion of the virus, and disappeared on the fifteenth. The fluid contained within the visicles was at first transparent, but became opake on the fourth day and was discharged on the sixth or seventh by bursting of the containing sacks. In a few cases, circumscribed excavated ulcers remained, which healed slowly. Fever was an accompaniment of the early stage of the eruption. The vaccine pustule was usually small, though distinct and well formed. Phlegmonous erysipelas followed the insertion of matter in a few cases, some of which were protracted and exceedingly painful to the patient. These departures from the regular course of vaccination did not depend upon any imperfection in the virus used. It was recent and produced the usual phenomena in other persons.

The virtue of vaccine virus is not impaired by passing through the systems of the negro race.*

Within the period contemplated by the resolution, scarlet fever has prevailed as an epidemic in the eastern part of Dayton. But five cases occurred west of the canal. These were usually mild, and in no instance fatal. In the former locality, the disease was quite malignant. Several cases proved fatal in five or six hours after the first manifestations were observed of a departure from health. These were among the first attacks. The symptoms in these cases during life, were those which usually follow the receipt of a powerful shock by the nervous system, from some potent morbific agent. The glands of the throat and neck were very much enlarged, although not sufficient to account for the speedy dissolution. Fever of a low grade was present.

A great majority of the fatal cases, however, occurred between the second and twelfth days. Whatever phlogistic

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* A recent No. of the Western Lancet contains a paragraph to the following effect, viz: Vaccine virus is destroyed by passing through the Negro constitution. This statement is either the result of gross ignorance, or a wilful perversion of facts.

elements the disease might present in these cases in the beginning, after the first or second day, a decided adynamic tendency uniformly supervened. The eruption in many of the fatal cases was fluctuating, often appearing sparcely, and declining several times during the twenty four hours. In each of these attacks, throat and skin symptoms were combined. The tissues of the pharynx never sloughed, nor did pus form in the glands about the neck. The pulse indicated the ingress of a powerful poison into the system. Delirium of a low muttering character was rarely absent. Convulsions occasionally preceded death. Organic lesions of the soft parts about the throat were not adequate to the fatal issue of these attacks.

The patients which recovered from the scarlet fever proper, began to convalesce from the eighth to the thirteenth day. In these cases, the eruption was fully developed and lasted the usual time. Anginose symptoms, more or less severe, were uniform accompaniments. Engorgement of the soft parts about the throat, and the eruption upon the skin, sustained usually an inverse relation to each other. Some of the cases were protracted and entailed upon the patients afflicting and occasional fatal sequellar.

In another class of cases, constituting about one fourth of the whole number, the eruption was absent. These patients presented the characteristic pulse, papillated tongue and lesions of the fauces, varying from an enythematic blush to an engorgement of the tonsils and soft parts, almost closing the passage from the mouth to the stomach. In very many cases, the tonsils met in the median line, forcing the uvula forwards upon the base of the tongue, or backward into the posterior nares. The mucous membrane covering these parts was of a bright vermilion color, but seldom ulcerated. Pus never formed in the submucous structures. Swelling of the external tissues and glands of the neck was occasionally present. The skin was uniformly hot, furfuraceous and devoid of moisture. As soon as the perspiratory function was established, the other general and local symptoms declined rapidly. This could usually be brought about from the sixth to the tenth day. For many weeks after all the other symptoms had declined and the little patient returned to its accustomed pleasures, the tonsils often remained much swollen.

In addition to symptoms already detailed, the following conditions conclusively demonstrate these cases to have been Scarletina.

1st. They occurred at the same time and in the same families, where scarlet fever was prevailing.

2d. An adjacent case was capable of communicating the cutaneous form of disease to a second person.

3d. These cases were always followed by desquamation of the cuticle, and in very many instances by regular sequella of scarlet fever.

5th. In every instance the patients presented the characteristic pulse and tongue of the disease under consideration.

The sequella which followed scarlet fever were the following, the enumeration being made in the order of their frequency:

1st. Desquamation of the cuticle. This was present in almost every instance, including those in which there was no exception.

2d. Anasarca and ascites were uniformly the result of exposure to cold and damp air. The most obstinate cases of this character were in those who had the cutaneous form of the disease.

3d. Ottorrhœa more frequently followed the anginose than the cutaneous variety. In one case, convulsions preceded the discharge of a collection of matter from the external auditory canal.

4th. Hydrothorax and hydropisicardium were occasional sequita.

5th. Croup and pneumonia frequently occurred in the persons who had formerly had either of the above diseases.

6th. Suppuration of the parotid and sub-maxillary glands in scrofulous subjects.

7th. Centro-spinal meningitis.

8th. Ulceration of the cornea.

9th. Suppuration under the tendon of the occipito frontalis muscle.

The treatment of this disease was based upon general principles, and it must be acknowledged that the results were not satisfactory. Some patients died before remedial assistance could be interposed. Other patients lingered from day to day, without exhibiting any satisfactory results, that could be attributed to the action of medicine. Most of the milder cases, however, were benefitted by gentle cathartics, diuretics and diaphoretics, and a solution of nitrate of silver in water to the throat. There was nothing peculiar in the treatment of the sequita. They were much more amencible to medication, than the original disease.

Rubula.—In some parts of Dayton and neighboring districts of country, measles have been quite common for the past three months. All who have not had the disease, irrespective of age, have in many places contracted them. As a general thing, the youthful portion of the community have not suffered to any serious extent. Those advanced in life, however, have had the disease quite severe in many instances. Those persons predisposed to pulmonary difficulty, or who, at the time of the seizure, were laboring under an affection of the lungs; the existing elements of disease were enhanced by an attack of measles. In a few rare instances, mental derangement preceded and followed the appearance of the eruption. Unquestionable insanity, in one case, lasted several weeks after it had disappeared. Retention of urine in adults, demanding the use of the catheter, was occasionally present. A much larger proportion of individuals advanced in life have had rubuola during the recent visitation, than usual. Quite a number of persons have had measles recently, for the second time.

Inflammation of the lungs was the most frequent complication. The accession of pulmonary congestion, or inflammation, upon the decline of this disease, has, in several instances, proved fatal. We have nothing new to offer in reference to the treatment of measles.

Roseola.—During the prevalence of the preceding skin diseases, Roseola among infants and adults has been a common disease. In many instances it scarce interrupted the usual avocations, in others only producing temporary inconvenience, requiring little medication.

The report was received and the Committee discharged.

Correspondence.

PARIS, February, 1854.

Editors Western Lancet:

In my last I promised to give you an account of the epidemic of Cholera—its treatment and mortality. I find, however, that I must give you only an abstract of what I have observed, lest it might be tiresome to you and your readers. It may be that at some future time, when I have fewer topics of interest, I will write out in full my observations for you.

Let me, then, give you the brief abstract on cholera before I proceed to many other matters which I wish to put in this letter. From the appearance of the disease here until the 1st February, 989 cases were treated in the hospitals, of which 526 were discharged cured, and 459 died. The epidemic was not a serious one, judging at least from those which ravaged Cincinnati in '49, '50, and '51. The majority of the cases I saw, were not very severe ones, and if they had been treated differently, I think the mortality would have been much less. You know, I think, the most successful treatment, admitted as such by the large body of the profession with us, was the administration of small and frequent doses of calomel and camphor.

Here, in all the hospitals, calomel was not given by any of the distinguished men. Indeed, they have no confidence in it, and very sneeringly call it, the *treatment of the North.* All confidence was placed in the administration of warm alcoholic drinks. At La Charite, in the services of M. Rayer and Briquet, who treated all the cases sent to this hospital, warm alcoholic drinks constituted the principal part of the medication. It is true, mustard plasters were freely used to all parts of the surface. M. Briquet also gave large doses, and frequently repeated, of Tinc. Opii, by the mouth and rectum. The patients were covered warm in bed, and bottles of hot water were placed around them. If vomiting was severe or urgent, seltz water was given, which is nothing more than ordinary water charged with carbonic acid.

Vapor baths were administered to the patients in bed, by an apparatus for this purpose. At the lying-in wards of the Clinique de la Faculte the cholera was very severe, and carried off a great number of women. In the most of the cases I did not observe that painful and troublesome symptom—cramp. At this hospital two cases in the wards of M. Prof. Nelaton were treated with calomel; one recovered and the other died. The history of these two cases is of some interest. My friends Prof. J. J. Judkins and Dr. Williams were in the words of M. Nelaton, one evening in December in conversation with the Interno, who told them that he had two cases of cholera,—one being seized a few hours before their visit, the other the day before. They advised the Interno to give calomel and camphor in small does to both. The one which had been laboring under the disease for the shortest time improved from the administration of the calomel and recovered in a very short time. The second case improved and

lived until the evening of the next day, but died of congestion of the brain. When M. Prof. Nelaton made his visit the next morning he was much surprised to see one of the patients living, and expressed his astonishment to his class, saying that the treatment had been suggested by the foreign physicians (par deux medecins etrangers). As for himself, (said he) I have no confidence in it, and can only regard its success in the two cases as accidental. As I have said before, M. Nelaton is not alone in these opinions. M. Bean of Hospital Cochin treated the cases in his service alone by seltz water. He said that the indication was to husband the patients' forces and therefore he would not apply mustard plasters. This treatment you may regard as a piece of drollery in medical practice here. The treatment in all the hospitals was very similar. M. Arran, who was filling temporarily the place made vacant by the resignation of M. Lewis at Hotel-Dieu, experimented with Iodine, administered by the mouth and rectum. The results were not very good. At La Charite I may say that Prof. Piorry treated his patients by albumine alone. There are two parties here as elsewhere, on the question of contagion. The majority do not believe that it is at all contagious, while a few, very respectable withall, give credence to its contagiousness. Post-mortem examinations have revealed nothing new as to its pathological anatomy. M. Veonois of Hospital Cochin, and Rayer of La Charite examined the urine of all the patients in their services, and invariably found albumen present. M. Mandl found cryptogamme in the evacuations.

Some very curious examples of the influence of cholera in the cure of other diseases were noticed in the hospitals. The service of Prof. Rostan at Hotel-Dieu, next to that of M. Rayer of La Charite secured the largest number of patients.

He delivered several clinical lectures on cholera. In one of them, he said that it sometimes cures pre-existing affections, sometimes aggravates them, and again exercises no influence whatever, the diseases continuing their ordinary march. He instanced many cases, two or three of which struck me as being very interesting. A young man entered his wards with a deep seated phlegmon in the left illiac region, the prognosis of which was pronounced to be very grave, owing to the cachectic state of the patient. Under the influence of a severe attack of cholera, the phlegmon passed away, and he made a rapid convalescense. A case still more interesting was that of a young girl who from great mental

distress fell down suddenly paraplegic. She was treated very actively without any relief. A short time after her admission she was seized with an intense attack of cholera. As she convalesced from cholera, all her paraplegic symptoms passed away, and she was discharged from the hospital cured.

The duration of cholera has been the same as that of the epidemic of 1832, which I give you as a matter of interest and reference *en passant*, of 4965 persons attacked, 294 died from one to six hours; 615 from six to twelve hours; 492 from twelve to eighteen hours; 1173 from eighteen to twenty-four hours; or 2474 died in twenty-four hours.

Of the other 2491, 823 died from 1st to the 2d day.

520	died	from	2d	to the	3d day.
382	"	"	3d	"	4th day.
240	"	"	4th	"	5th day.
125	"	"	5th	"	6th day.
79	"	"	6th	"	7th day.
171	"	"	7th	"	8th day.
35	"	"	8th	"	9th day.
36	"	"	9th	"	10th day.
111	"	"	10th	"	11th day.
19	"	"	11th	"	12th day.

But I must to some other matters. I have collected much of interest, to myself at least, but lest I may trespass on you with what I am sure is a hackneyed subject, I will reserve them to a more convenient time. Prof. Piorry of La Charite has been making a series of experiments with inhalations of iodine in the treatment of Phthisis Pulmonatis. He read a paper on the subject a short time ago, before the Imperial Academy of Medicine. I can only spare room for the conclusions of his paper. The definite results of the treatment are as follows: "Marked amelioration in the anatomical characters and symptoms in twenty cases. Disappearance of the anatomical characters, and the most part of the symptoms in seven cases. Death with or without positive amelioration in four cases." He says, "You will observe, that the amelioration in the material state of the patients, corresponded almost constantly with an advantageous modification in the functional symptoms, such as the cough, the abundance of matters expectorated, and the hectic fever. It has happened even under the influence of the treatment that several women, whose menses had become suspended, and who had lost large quantities of blood from the lungs, have had the menses to reappear. The mode of inhalation is very simple; it consists in

placing a bottle containing from ʒi to ʒiss iodine to the mouth and applying heat. The patient makes a deep inspiration from time to time, during half an hour. In conjunction with this, he administers iodine internally and applies it over the parts of the chest dull on percussion, as well as over cavities. He gives large doses of quinine when there is splenic enlargement, or hyperaemia of this organ. When there was hectic during the night, he gave small doses. If pus or mucus accumulated in the bronchia, he administers emetic doses of Tartrat: Antim. In addition to all this, the patient is allowed the best diet of the hospital. You know the reputation of Piorry, in the diagnosis of diseases of the thoracic cavity, by percussion and auscultation. He uses a plassimeter, and makes out a diagnosis as he says, with absolute certainty. After the reading of his paper, it was the subject of some discussion. One member asked him if he had made post mortem examinations of those of his patients treated by inhalations, who died. He replied with great emphasis in the negative, and that he had as much confidence in his plassimeter, as he would have in a post mortem. He sits down by the bedside of each of his patients, at least of all those he examines daily, which is never more than those in one ward. He next calls for a large sheet of adhesive plaster, with which he covers the entire front part of the chest of the patient.

He then commences his percussion on the plassimeter. As he says, he *maps* out the condition of the lungs. These *maps* are really very curious specimens in their way. I have stood and watched him for an hour or two, and have been excited by laughter and ridicule.

On his *map* or adhesion plaster he has dullness absolute here, a cavity there, and commencing softening at some other part. Piorry has no donbt been very strong in his day; but I must say I cannot regard him so at present. He makes out a diagonis of the diseases of the spinal marrow, as inflammation, the existence of a tumor, &c., by the same process, by percussing over the spine itself. I saw him examine a girl, and diagnose positively, disease of the left kidney. The The girl died finally when it was found that she had but one kidney, which was perfectly healthy!

He has taken up the idea lately, that he can produce adhesion of the walls of cavities of the lungs, to the chest by compression, and in this way cure his patient. To carry out this idea he had Chariere, the instrument maker, to fabricate an instrument composed of a strong spring with two pads. One

of the pads is placed over the cavity, and the other on the spine. The pressure exerted by this instrument is by no means inconsiderable. I have seen it applied, and worn for some time; but I do not think that any one has seen any good results from it, unless it is M. Piorry himself.

Another one of his ideas is, that we may see an enlarged spleen diminish in size, in a few minutes after the administration of a portion of quinine. He is not followed by a large class. Of all the men here, he has inspired me with the least respect for scientific ability. He delivers three clinical lectures weekly: Prof. Boillaud giving the other three on alternate days.

His practice is very small; which is unusual for one occupying the distinguished place he does.

M. Becquerel, one of the physicians of hospital Lourcine, has recently published a paper on the treatment of vaginitis, by cauterization with nitras Argent. It is of so much interest, that I give you its prominent points. He divides the disease into three varieties, specific, chronic, and simple acute vaginitis. The acute variety, is accomplished sometimes with uretritis. The coincidence of uretritis, is less frequent than has been generally supposed. Becquerel has observed it only once in 40 cases. He makes no difference in the treatment of simple and specific vaginitis. The sooner the cauterization is applied after the disease has commenced, the more certain is the cure. The plan which follows the cauterization, is more severe during the acute stage, than the chronic one. The introduction of the speculum is absolutely necessary for the cauterization. An injection of cold water, is thrown into the vagina to wash out the mucopurulent fluid. The back part of the vagina is first cauterized, and then the neck of the uterus; and as the speculum is withdrawn, the remaining portions of the vagina. An injection of cold water is thrown up five minutes afterwards, and is repeated several times during the day, if the patient complains of pain. In general the number of cauterizations vary from five to six.

The results obtained determine the number. The first effect produced is pain, which is seldom severe enough to make the patients cry out. It is proportioned to the acuteness of the disease. The second effect is an increase of the discharge, which is, observed to be constant in every case The quantity, but its color never does. The increase of the discharge varies in duration, it generally lasts from two to four days. If it disappears completely at the end of four

days, it is a certain sign of the cure of the disease. If, however, it persists, there is need of further cauterization. After the first application of the nitrat Argent: he waits two full days, which with the day of the operation makes three; when two cauterzations have been made, he awaits three days so as the better to appreciate the cure. He says that he has cured all of his cases, in this way, numbering more than forty. In general three cauterzations are necessary for the cure of the acute cases, and six for that of the chronic ones. When catarrhal inflammation of the neck of the uterus exists, it is very important that the Nitrat Argent, should be applied to it. Relapse of the vaginitis is in acute cases where it had been neglected has been observed.

I have devoted some considerable part of my time to the Hospital des Infants Malades, (children's hospital.) M. Tuersant is the surgeon. You may remember that his father occupied the place of one of the physicians to this same hospital, and gained a great reputation for the treatment of infantile diseases. The present surgeon is a small man with a reddish face, grey eyes, a nervous manner, being very quick in all his examinations and manual operations. He looks as if he had seen 45 years. His clinical day is Thursday, when he delivers a lecture and generally operates on four or five patients. He is a true Frenchman so far as talking is concerned, but does not say very much on the subject proper of his lecture.

In a recent lecture on Croup and tracheotony he gave the following statistics of this operation in this hospital.

In 1850,	20	cases	were	operated	on	of	which	6 were cured.
In 1851,	31	"	"	"	"	"	12	" "
In 1852,	59	"	"	"	"	"	11	" "
In 1853,	61	"	"	"	"	"	7	" "

These statistics are not certainly very encouraging. As for myself, I believe that if the operation was performed sooner than it generally is, that the success would be greater. M. Tuersant has been very successful in the treatment of erectile tumors by the application of the actual cautery. He has made these tumors the subject of several lectures during the winter, a few brief notes of which I send you. He divides them into veinous erectile tumors and arterial erectile tumors according as one or the other of these tissues predominates. They may be sometimes pediculated, or again at others quite flat or round. They are almost always congenital In certain families they are hereditary, and have persisted

to appear in the fourth generation. Generally there is but one, but occasions are not rare which show us several on the same patient. They are observed more frequently below the diaphragm, sometimes on the arms, and very frequently on the head. When there are several on the same individual one is observed on the head.

The progress of these tumors is very variable. They may extend very rapidly either in depth or width. Generally they demand prompt surgical treatment; sometimes they cure spontaneously. This happy termination is not very frequent, and is never observed in tumors very voluminous. When they are cured in this way, it is owing to the appearance from some cause or another, of an inflamation in and around them. The prognosis is grave; but it may vary according to the size and seat of the tumor, its superficial or deep seated position.

The treatment is quite various. The first plan is to use all means which destroy immediately the morbid tissues. The second comprises all those remedies, which in modifying or transforming the pathological tissues. In the first class are included ligature, extirpation, cauterization, in mass with the ferrouge or caustics. The second includes compression, ligature of the principal vessel of the part, vaccination, partial cauterization with needles at a white heat, and lastly the seton.

The ligature would be an efficacious remedy, if it was applicable to all cases, and if it did not give rise to grave accidents. If the tumor is decidedlyy pedeluated, and its roots do not extend into the surrounding tissues, its success is almost certain. If however the base of the tumor is large, and diffused, and more or less profoundly situated, we may succeed in causing the tumor to slough off, but it will be produced by the roots which remain.

Extirpation of these tumors has deservedly fallen into discredit. Hæmhorhage of the gravest character is often the result; and the rule given by J. L. Petit to carry the knife beyond the diseased tissue, does not render the operation any safer. If the surgeon decides to extirpate these tumors, they ought to be perfectly circumscribed. The operation of cauterizing in mass may be made in two ways. First, with the actual cautery; second, with caustics. The cauterization in mass with a *bouton de feu* should only be made on tumors of very small volume, which may be destroyed immediately.

The potential caustics, (in general the Vienna paste) has been recommended by Aug. Birard. I have recourse to them

very often. These caustics are however only applicable to certain cases; where the tumor is very superficial, and where there is a point of support for the pressure.

The compression must be made on the tumor, and at the same time on the neighboring parts. In this way it arrests the course of the blood in the tumor, and in the surrounding parts which nourish the erectile tissue. The ligature of the principal vessel of the part has been followed with brilliant success, by M. Roux, and other surgeons. It is however, dangerous, and is frequently followed by frightful hæmhorhage.

The seton may be, and ought to be employed in certain conditions. In a case where ligature of the external carotid had been advised by a professor of the Faculty, we obtained a complete cure by the use of a certain number of threads passed through the tumor, in the lapse of five weeks to two months.

If it is less dangerous than the ligature, it is followed by erysipelas, which is so fatal to children. The cure by vaccination, especially when children have not been vaccinated, and the tumor is flat, is followed by satisfactory results. We make with a lancet, from three to six punctures, not upon the tumor itself, but on its limits. The virus if possible, ought to be taken from a pustule and employed immediately. Partial cauterzations with needles at a white heat, are made by means of platina needles, inserted into a ball of iron.

We puncture the tumor according to its volume, a certain number of times. They are repeated if necessary, until a cure is accomplished.

An inflammation is determined in the thickness of the tumor, and in consequence an inodular tissue is formed which takes the place of the erectile tissue. We have recourse to this means the most frequently; its application is simple and easy. Its action is certain and sure. The erysipelas which follows so often all other therapeutic remedies are very rare as a consequence of this.

It is no matter what means we use, we must remember that there are erectile tumors which defy all surgical efforts; they are those multiple erectile tumors, which invade simultaneously all parts of the body, develop in all the tissues, and leave us nothing to do, but to watch their fatal progress."

I have seen many cases cured by M. Guersant. He is also a great partizan of the *fer rouge*, for the cure of prolapsus of the rectum in childreu. He punctures the margin of the anus,

in several places, and generally cures the patient, with one application.

Since I last wrote you, the subject of the treatment of uterine deviations by Simpson's repressor, as modified by M. Valleix of La Pitie, has been brought before the Academy of Medicine. Nothing has been said since the protracted discussion of the whole subject in 1849. The discussion which will take place shortly, promises to be very exciting, if not somewhat severe. The occasion of the introduction of the subject at the Academy, was the reading of the report of the treatment and death of a woman at hospital Lourcine by M. Broca, one of the surgeons of that hospital. The case was one of anteversion of the uterus, for which the redressor was applied. I have not space in this to give you the case in full, but I must say that I do not believe the death of the woman was determined by the instrument. The woman had peritonitis of a chronic chaarcter, and for this reason I believe M. Broca is wrong in attributing the fatal termination to the redressor. He says, moreover, that not the least trace of a wound of the internal surface of the uterus could be found, nor of any inflammasion of the peritoneal or external surface. However, the report was thought to be a matter of great importance, as it deservedly is, and was sent to a committee composed of Depant, Huguier and Robert. At the next meeting, Prof. Cruveilhier, read a long report of a case which terminated fatally under his observation. This report was sent to the same committee, whose action is anxiously looked for.

(To be continued.)

Reviews and Notices.

The Science and Art of Surgery. Being a treatise on Surgical Injuries, Diseases and Operations. By John Erichsen, Professor of Surgery in University College, and Surgeon to the University College Hospital. Edited by John Brinton, M. D.—Illustrated by Three hundred and Eleven Engravings on Wood. *Quæ Prosunt Omnibus.* Philadelphia: Blanchard & Lee. 1854.

For a number of years Dr. Erichsen has been Professor of Surgery in University College, and Surgeon to its Hospital; occupying the same position that was once held by the distinguished Listen. The present volume contains the substance of the lectures he was in the habit of delivering to his classes, and possesses, in

some respects, more interest than most similar surgical works, from the fact that he has happily presented in each chapter the physiological and pathological principles, on which surgical practice is instituted in each individual case, and thus combining and concentrating into a comparatively small space both the *Science* and *Art* of Surgery. The microscope has recently thrown so much light on Physiology and Pathology as to leave very little room for doctrinal speculations on any of the subjects treated of in surgery; and our attention was deeply interested in the illustration of this *triumphant fact*, on reading the few pages appropriated by our author to inflammation. Instead of a mass of unsatisfactory theory on the subject of inflammation, he has presented us with the revelations of the microscope as obtained by a series of close observations on the progress of the pathological changes of the solids and fluids, from a state of health to the full establishment of the phenomenon of inflammation, leaving this long obscured and mystified subject as clear and demonstrative as a fractured limb or a dislocated joint.

The work is illustrated with a large number of well executed wood-cuts, accurately drawn from nature, and, as a test of their originality, you will find, on viewing them, that you are not struck with the idea that you have seen the same stereotyped figures illustrating some half-a-dozen modern surgical text books.

For sale by Moore & Anderson.

Handbook of Chemistry, Theoretical, Practical, and Technical. By F. A. Abel, Professor of Chemistry at the Royal Military Academy, Woolwich; and Assistant Teacher of Chemistry at St. Bartholomew's Hospital; and C. L. Bloxam, formerly First Assistant to the Royal College of Chemistry. With a Preface by Dr. Hoffmann: and Numerous Illustrations on Wood. Philadelphia: Blanchard and Lee. 1854.

Chemistry is a rapidly progressing science, and moves with such an accelerating pace that the press must be kept constantly in motion to record its developments; and the Chemist must be a devoted student or he will soon lose sight of the bounds of his favorite field, and find himself wandering in darkness and confusion among the rubbish of exploded or obsolete theories.

The German, French, and English Chemists have all contribu-

ted largely to the grand results that are now experienced in medicine and the arts, by tracing out and developing the principles of Chemical science. But each has had his favorite department and distinguished himself by investigations in that particular direction, leaving a large expanse around him entirely unexplored and unimproved; so that the student has been unable to get even a glimpse of the science in its recent proportions, without perusing numerous volumes in the three languages in which modern science seems best pleased to reveal itself, viz: German, French and English. Dr. Abel has availed himself of the most ample sources of knowledge, in the production of the present volume, both from reading, and from experiment in the laboratories of St. Bartholomew's Hospital, and the Royal College of Chemistry, and we make no hesitation in saying that it is the most complete *theoretical*, *practical*, and *technical* treatise on Chemistry that has yet issued from the American press.

For sale by H. W. Derby.

Editorial.

THE ASIATIC CHOLERA.

It will be seen, that we have devoted a large portion of our present number, to the consideration of this truly formidable disease. This, we think, will meet the approbation of our readers, from the fact, that we are perhaps, about to receive another very unwelcome visitation from the cholera. For some two months past, we have been receiving rumors of its prevalence at various points in the South. and particularly on the boats conveying emigrants on the Mississippi and its tributary rivers. Among the emigrants on some of these boats, it has been very fatal; probably from their crowded and ill ventilated apartments on the boats, and their indulgence in improper and innutritious food, together with a want of efficient medical aid in the attack. During the early part of the month of May, a few cases were brought to the Commercial Hospital from the river, but, so far as our knowledge extends, no cases have occurred amongst our citizens, until within the past two weeks. Since that time, however, some eighteen or

twenty cases have appeared in some of the most unhealthy localities of the city, where the unacclimated, hard working class of persons chiefly reside; and we have no doubt, a much larger number has been met with, as would appear, if we had reports from all the practitioners in the city. The points in the city at present attacked, are those in which the disease first made its appearance, in the memorable years of forty-nine and fifty; and the class in which it finds its victims now, is similar to the class that was first decimated by it in those years. In forty-nine and fifty, in the last weeks of May and the first weeks of June, as at this time, it seemed unsettled in its purpose, skipping from point to point with great rapidity, until by the last of June and the first of July it had spread its dark mantle over every street, and was gathering in its cold embrace victims without favor from every class of our terror-stricken citizens. It is true that at present the cases are not so numerous, and the disease is probably not so fatally malignant as at a corresponding time in forty-nine and fifty, but judging from the history of the past, and the present indications, we have reason to fear that the few cases we have had are but harbingers of an approaching epidemic.

There are few practitioners who have had more experience in the treatment of cholera than Dr. T. Carroll, whose name appears as the author of the leading original article in this number. In the epidemic of thirty-two he was actively engaged in his professional duties at Wheeling and Bridgeport; and in forty-nine and fifty, in Cincinnati, no one was more among the sick than he. Hence his opinions, the result of so extensive an experience, have strong claims to our respectful consideration. Professor Murphy, (who is now in Paris, "taking notes,") in his excellent correspondence for our journal, gives us a view of the Parisian mode of treating cholera. We think the remarks of these two gentlemen are peculiarly appropriate, and will be found acceptable to our readers at the present time.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The St. Louis papers contain the proceedings of the seventh annual meeting of the Association, which met in that city on the second of May. The business for which they met was conducted with that unanimity of sentiment and decorum that should al-

ways mark the proceedings of an association of distinguished gentlemen. The President, Dr. Knight, of Connecticut, being absent, Dr. Usher Parsons, of Rhode Island, Senior Vice-President, took the chair. The number of delegates present was quite large, as nearly every State in the Union was represented. The Convention was organized and the roll of the members called, when Dr. Parsons delivered an address to the Association.

As we have not space for the entire proceedings, we will give the substance of the most important resolutions that were adopted.

Resolution 1st. To appoint a committee to prepare for publication brief sketches of the histories of the members who lost their lives last year at the Norwalk disaster.

2d. To present to the Academy of Paris a copy of the proceedings of the Association from its commencement.

3d. Disapproving the practice of getting up expensive entertainments for the Association.

4th. Laying a tax of three dollars on each member to defray the expenses of publishing transactions. Members not complying to have their names stricken from the roll.

5th. Approving of the Secretary of the Treasury's recommendation to Congress in relation to duty on imported drugs.

6th. Appointing a committee to enquire if any society represented in the Association held fellowship with irregular practitioners.

7th. Appointing a standing committee on Insanity.

8th. Appointing a committee to enquire into the cause that obstructs our national medical literature.

9th. Appointing a committee to enquire into the best means of preventing the introduction of disease into our country by emigrants.

10th. Expressing the opinion of the Association that quarantine regulations are of no value in preventing the spread of cholera and yellow fever.

The following officers were chosen for the ensuing year:

President—Charles A. Pope, of Missouri.

Vice-Presidents—E. D. Fenner, of Louisiana; N. S. Davis, of Illinois; William T. Wragg, of South Caroline, and John Green, of Massachusetts.

Secretaries—Edwin S. Lemoine, of Missouri; Francis West, of Pennsylvania.

Treasurer—D. F. Condie.

On taking the chair Dr. Pope made a brief but eloquent address.

The following standing committees were appointed:

On Hydrophobia—Dr. Blatchford, of N. Y., Chairman.

On the best means of preventing the Introduction of Disease into our Cities—Drs. Dixon, Griscom and Fenner.

On the Epidemics of New England and New York—Dr. Worthington Hooker, of New Haven, Connecticut.

On the Epidemics of New Jersey, Pennsylvania, Delaware and Maryland—Dr. John Atlee, of Pennsylvania.

On the Causes of Tubercular Diseases—Dr. D. F. Condie, of Philadelphia.

On Diseases of Parasitic Origin—Dr. Joseph Leidy, of Philadelphia.

On the Use and Effects of Nitrate of Silver on the Throat, either in local or general disease—Dr. Horace Green, of N. Y.

On the Administration of Anæsthetic Agency during Parturition—Dr. P. Claiborne Gooch, of Richmond, Va.

On the Diet of the Sick—Dr. Charles Hooker, of New Haven, Conn.

On the Hygrometrical State of the Atmosphere in various localities, and its Influence on Health—Dr. Sanford B. Hunt, of Buffalo, N. Y.

On the Frequency of Deformities in Fractures—Dr. Frank H. Hamilton, of Buffalo, N. Y.

On Typhoid Fever in Maine—Dr. S. B. Chase, of Portland, Maine.

Committee on Prize Essays—A. LaRoche, M. D., Isaac Hays, M. D., Alfred Stille, M. D., J. B. Biddle, M. D., George W. Norris, M. D., Joseph Carson, M. D., all of Pennsylvania.

Committee on Publication—Pliny Earle, M. D., of New York; D. Francis Condie, M. D., of Pennsylvania; E. S. Lemoine, M. D., of Missouri; Francis West, M. D., of Pennsylvania; Alden March, M. D., E. H. Davis, M. D., C. R. Gilman, M. D., of New York.

The Association meets in Philadelphia next year.

HYDROPHOBIA.

It appears that this formidable disease is prevailing to an alarming extent in the canine family of this city. Although we hear of many persons being bitten, only one has yet been affected with hydrophobia. This person, a man of middle age, in the full vigor of life, received a bite from a dog, as he was passing along the street after night, and, not suspecting hydrophobia, paid but little attention to the accident. In about three weeks symptoms of the disease made their appearance, which in a few hours reached those terrific spasms peculiar to hydrophobia. The best medical aid was obtained, but, as in all such cases, it was unavailing.

☞ *Small Pox* has been very prevalent during the past winter among the tribes of Indians that inhabit the territories embracing the tributaries of the Missouri and Columbia rivers. In several instances, the whole tribe has been extinguished. The Sandwich Islands have also suffered extremely with the same loathsome disease.

☞ We learn from the "Edinburgh Monthly Journal" that the town council of the city of Birmingham have advertised for some member of the medical profession to fill the office of "*Sanitary Inspector*," which is *honorary*. This is considered "*degrading*" by the profession, because there is no salary attached to the office. In Cincinnati, the members of the Council consider themselves so much enlightened on this subject as to reject, by vote, a resolution to ask the advice of the profession in a matter so important as the proper construction and arrangement of a city hospital.

Miscellany.

Note on the treatment of Diabetes Mellitus by Rennet. H. Fearnside, M. D., of London, Physician to the Preston Dispensary.—In the number of the Monthly Journal for January 1853, there is an interesting article by Dr. Gray of Glasgow, on use of rennet in the treatment of cases of diabetus mellitus. In two instances which are detailed the saccharine impregnation of the urine was removed, and the patients regained their

former health; and in a third, reported whilst under treatment a great improvement appears to have been effected. Meeting with an example of the disease, shortly after the perusal of Dr. Gray's paper, I put his treatment in practice, and the result was so encouraging, that although averse to the publication of isolated cases, I think no apology is needed for placing it before the profession. For, at all events, be the precise merits of the treatment what they may, it tends to confirm the opinions of Bouchardas, Schutzenberger, and other continental pathologists, that the complaint is not so inevitably hopeless and incurable as is generally supposed in this country. As my object at present is simply to narrate a fact, and not to speculate on the nature of the disease, or criticise the opinions of others, I proceed without further preface to give an outline of the case in question.

Mrs. H., a tall, spare woman, aged 55 years, had suffered from bad health for some time, without being able to indicate the existence of any special ailment. She had lost strength and flesh, and for some months before she fell under my notice, her debility had increased so much that it was with difficulty that she attended to her ordinary domestic duties. For a considerable time she had remarked that the quantity of urine passed was excessive, and she had been harrassed by constant thirst. When I first saw her the expression of the countenance was haggard and anxious; the skin was hot and dry; the pulse quick; the tongue was loaded with a yellow fur; she complained of inodorous eructations, heart-burn and flatulence; the bowels were confined; the thirst inordinate. There was great muscular weakness, and severe pains in the back and limbs. The quantity of urine passed in twenty-four hours was five quarts; it was acid, specific gravity 1046, and gave evidence on the application of the potash and copper tests of containing sugar.

After the use of some gentle aperient medicine, the diluted mineral and hydrocyanic acids were prescribed, and with more or less regularity, were taken for some months. The diet was strictly limited to butcher-meat, fish, eggs, milk, and bran bread. Fresh vegetables, as cabbages, were taken occasionally. Brandy and water was allowed as a beverage. A dose of rennet was taken after each meal.

A fortnight after the adoption of this plan, the patient became so conscious of its good effects, that notwithstanding the vigorous exercise of self-denial which it required, no further exhortations from me were needed to ensure its steady

employment. The digestion improved, the thirst subsided; the quantity of urine passed in twenty-four hours fell from five quarts to two quarts, and eventually to three pints, and its specific gravity descended in three months from 1046 to 1020. It has now for some months been free from sugar, although the patient has cautiously and gradually returned to her ordinary mode of life. She has recovered in a considerable degree her strength, but remains spare and thin.

Epidemic Diseases of Ohio, Indiana and Michigan.

At the late meeting of the American Medical Association the undersigned was reappointed chairman of a committee to report upon the Epidemic Diseases of Ohio, Indiana and Michigan at the meeting of the Association to be held in Philadelphia, in May next. In fulfilling the object enjoined upon the chairman, he has appointed N. Johnson, M. D., of Cambridge City, Ind; Z. Pitcher, M. D., of Detroit, Michigan; D. Tilden, M. D., of Sandusky, Ohio; and J. Adams Allen, M. D., of Michigan, as members of the committee. It is desirable that as complete a report as possible be made, and the co-operation of the profession in these States is therefore most earnestly requested. Information is especially desired on the following subjects:

Epidemic Cholera.	Typhus and Typhoid Fevers.
Cholera Infantum.	Hooping Cough.
Diarrhœa.	Influenza.
Dysentery.	Measles.
Erysipelas.	Scarlet Fever.
Intermittent and Remittent Fevers.	Small Pox, &c.

Any other form of disease appearing as an epidemic will be understood as being included along with the above.

The points of greater interest to which attention is particularly invited are, Causes giving rise to and favoring the propagation of diseases or checking its progress; Prophylactics; influence of Age, Sex and Nativity; Prominent Symptoms; Extent of Prevalence; Proportional Mortality; Post mortem appearances; Treatment; Duration of individual cases of disease; and any other points that may in any way bear upon the subject, such as Soil; Geological formations (illustrated by a map when practicable) Natural productions; Condition as to Improvements; Water; Meteorological Observations, &c.

It is preferred that reports be made to January 1st, 1855, including the previous year. If any remarkable visitation of disease should have occurred previously to that time an account of them will be acceptable, carefully designating the date of occurrence.

General Medical History, also of the *changes* which have occurred in particular districts in disease since the settlement of the country will be gladly received.

It is desirable that all reports made to the committee, may be forwarded so that they may be in the hands of the chairman by the 15th of January, 1855.

The chairman takes this method of thanking those physicians who sent him contributions for previous years, and hopes that they may repeat them for the present year.

It is hoped that this appeal to the profession will be responded to, and that every member will feel himself called upon to contribute something to the general fund of knowledge on these subjects.

Contributions may be sent to

GEO. MENDEHALL, M. D., *Chm'n.*
Cincinnati, Ohio.
Z. PITCHER, M. D., Detroit, Mich.
N. JOHNSON, M. D., Cambridge City,
[Wayne Co., Ia.
S. M. SMITH, M. D., Columbus, O.
J. ADAMS ALLEN, M. D., Ann Arbor,
Michigan.

P. S. The Committee would respectfully solicit the aid of the County and other Medical Societies; which can be efficiently rendered by members making brief reports to the secretaries, who can condense them, and furnish the result to the committee. Especial attention is also requested to the furnishing of geological maps of counties and districts, when practicable.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

AND

T. WOOD, M. D.,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY; PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY; PROFESSOR OF SURGICAL AND PRACTICAL ANATOMY IN THE MEDICAL COLLEGE OF OHIO; AND FORMERLY RESIDENT PHYSICIAN TO THE FRIENDS LUNATIC ASYLUM AT FRANKFORD, PENNSYLVANIA, ETC.

No. 7. CINCINNATI, JULY, 1854. Vol. XV.

Original Lectures, Essays and Communications.

Observations on the Asiatic Cholera, as it appeared in Cincinnati during the years of 1849 *and* 1850. By Thomas Carroll, M. D.

(*Continued.*)

The question of contagion is one of such importance that we shall be excused for stating, at some length, such facts as go to confirm the opinion above expressed. We shall not confine ourselves to the city of Cincinnati, for a crowded city is not, we think, the place to find decisive arguments in favor of the contagious nature of any disease. We must resort to isolated communities or to those having little connection with the population of cities. Such a community, or family, may be visited by an individual, coming from a locality with which they have been heretofore entirely disconnected. Who falls sick, amongst his new friends, is taken care of by them, and is discovered in due time to have, if you please, small-pox. Subsequently the family who have nursed him, are attacked in the same manner; the friends and neighbors who visit them suffer in the same way, and, in turn, *their* neighbors and friends. Evidence of this kind would seem to place beyond a doubt the contagious nature of any disease;

and facts quite as striking as those just supposed can be quoted to show that Cholera is so. Of these a few instances will be given.

A stranger from Pittsburg arrived in this city, and spent the night here. On the following day, or within a day or two, he left the city, and arrived at nightfall at the house of a relative, some thirty miles distant. During the night he became ill of Cholera, and, within a short period, died. The family consisted of nine persons, of whom, within three days after the death of their visitor, all, excepting one old lady, had died of Cholera. Several of those who aided in performing the last duties of humanity to the deceased, also sickened and died. The house in which the first cases occurred was eventually burned for the purpose of arresting the disease in that locality.

A farmer came to this city on business early in May 1849, and returned home the next day. On the ensuing day he became ill of Cholera and died. Within two or three days more, his wife and four children were all dead. We are not aware that any other cases resulted from these.

A huckster left Cincinnati during the prevalence of the epidemic in 1849, and arrived, some hours after, at a point in Preble county, some thirty miles from town. During the following night he died of Cholera. A number of individuals saw him during his illness, and after death, and attended his funeral. Now we have been informed by Dr. Williams, then of Preble county, now of College Hill, that a hundred fatal cases of the disease could be traced to this one case; and that the pestilence spread over the country a number of miles from the point where it originated, extending to Eaton, the seat of justice, amongst other localities.

There is a fact in regard to the conveyance of Cholera by contagion, that has not been considered with sufficient care by the anti-contagionists: we mean the possibility of a person conveying the disease who has not been very ill himself, or rather, who has been passing only through the first stage of the disease. It is certainly true that a patient may at no time be confined to his bed, or even to his room, and yet he may go through an attack of Cholera, get well, even without any remedial agent, and, as the following case will show, communicate the disease to another.

A German wagoner, living forty miles from this city, was in the constant habit of driving between the city and his home. A week or more before his last visit he had diarrhœa,

but of so mild a nature that he did not quit his business. He drove to the city, on the ensuing night became worse, and died here in a few hours. His wife, whom he left at home, was attacked by Cholera about the time that he became worse, and died about the same time that he did. A physician was called to see this woman. He lived, I think, at Waynesville, O. He remained with the patient some hours, became ill of Cholera on his way home, and died very soon. We are not informed whether other fatal cases could be traced to these two.

The following case, with its results, is of a similar character to the preceding: A traveler left Cincinnati during the epidemic in 1849, and, after one or two days' journey, stopped at a hotel in New Boston, Indiana. On the following morning he found himself too unwell from diarrhœa to pursue his journey, and so remained at the hotel about a week, most of the time keeping his room. He got better and left. A week afterwards, Cholera broke out at this house and spread through the village with appalling rapidity. Most of the citizens fled, but some twenty or thirty died, notwithstanding. Two quack doctors, of Richmond, Indiana, hastened to the ill-fated town for the purpose of arresting the pestilence. They soon left, however, satisfied of the fruitlessness of their efforts; and subsequently both had Cholera, one of them dying. The wife of one of them sickened, and, we believe, died. During the illness of these individuals they, of course, had occasional visits, and the disease soon prevailed in Richmond and vicinity, with eighty fatal cases as a result.

A train of well-known circumstances occurred some ten miles from Cincinnati in 1850. A farmer by the name of Smith, who resided in a healthy location, came to town on business, went home the same day with a slight diarrhœa; during the night ensuing became worse, and in thirty-six hours, died. Two days after, a daughter took the disease, but recovered. In two days more, two other members of the family became ill, and soon died. Within a week from this time, there were three more fatal cases. But two of the family were left. One individual who extended humane attentions to the family during their afflictions, died of Cholera. These were the only deaths in that neighborhood, though we believe a few other persons were indisposed. The circumstances attending the fate of this family are amongst those denominated *singular* by Dr. M——; but we think them no more singular than what constantly occurs,

and will continue to occur, wherever, and so long as this scourge continues its devastations. To us they demonstrate very clearly the doctrine of contagion, however mysterious they may appear to others.

To show still farther the insidious nature of the Cholera poison, we may refer to the circumstances attending its development at Cheviot, a small village six miles from Cincinnati. The first victim there was a man rather advanced in life. It was said that he had no opportunity of taking the disease, but that growing out of his location on a road leading from the city. We were at pains to investigate this matter. We found that a son of this man lived in the city, and that we had attended him about two weeks previous to the appearance of Cholera at Cheviot, while laboring under another disease. His father visited him at least twice during that time, and we know that cases of Cholera existed in the neighborhood of the son's residence; so that the father had all the necessary opportunity of contracting the disease. Within a few days after his death, seventeen other persons sickened of Cholera, of which, we believe, fourteen died. The village did not, at that time, contain more than 150 inhabitants. It is situated probably 400 feet higher than Cincinnati, and has no swamps or swampy lands near it. Indeed, it may be considered as occupying one of the most healthy localities in the West. When we learn that the population of this village is spread over a considerable surface, and that the neighboring farms were exempt from the disease, it is difficult to account for the occurrence of cholera there apart from contagion. We shall conclude this detail of facts by the three following cases, not connected with the Cholera in Cincinnati. Their number might be multiplied to an indefinite extent.

During the prevalence of Cholera at Wheeling, Va., in 1832, a farmer living in Belmont county, Ohio, where we then resided, visited that market, and, either on the night of his return, or the succeeding night, became ill of Cholera. Our friend Dr. Evans, of Harrisville, was called to see him. He died, however. Within a day or two, other members of the family took the disease, and two or three of them died. A lady who was present during the continuance of the first case, became ill and died. A friend of the family who came to attend the funerals of the deceased, returned home, a distance of eight miles, took Cholera and died; and very soon, two or three more paid the debt of nature by the same disease. To cap the climax of these tragic occurrences, Dr. Evans himself contracted the disease and died.

Equally striking are the circumstances attending the appearance of Cholera in Gallia county, in this state. We have had some difficulty in procuring a precise detail of the facts in this case; but the following statement is believed to be substantially correct. It is admitted by strenuous opponents of the theory of contagion to have been, at least, strongly suggestive of the truth of that theory:

During the time the Cholera was raging in Cincinnati in 1849, a man visited the city, and left on a steamboat for the neighborhood of Gallipolis. He wished to land some distance below that town, but before he arrived at the wished for place, he was taken with the Cholera, and died about the time of his arrival. His remains were closely incased in a coffin; his friends soon arrived, and removed the corpse to a part of the country some miles off, called Greasy Ridge. Before the body was consigned to its last resting place, the coffin was opened, to let the relations and friends take a parting adieu. Putrefaction had begun before this, so that the odor oozing from the body was quite offensive.

Ten of those who looked on the deceased soon sickened and died; five of those who waited on them also fell victims to the malady; and three physicians who waited on them took the disease, one of whom only escaped alive.

A farmer residing near Wheeling in 1832, visited that place, and remained over night; left next morning, and visited his father, became ill during the night, and soon died of Cholera. The body was thrust into a coffin without removing the clothes in which he died. The room was shut up, and continued so for a week, when the father and sister of the deceased, who alone constituted the family, determined to wash the bedclothes, which they did. They retired at the usual hour in the evening, but some time during the night, both became ill of Cholera, of which they both died.

But why pursue this matter further? The whole history of the disease from the time of its first appearance in India, goes to prove its contagious character. Considered by the authorities on the spot where it originated, to be of purely local origin, the result of unwholesome diet, it spread rapidly through the adjoining villages, and from district to district, until almost the whole province of Bengal was brought under its influence. In its progress through that country, and throughout the world, it traveled not in direct lines, not by malarious regions, was not confined to any particular climate; but along thoroughfares of travel, across sandy deserts, in the face of trade winds for hundreds of miles, by the most circuitous routes ranging

through every degree of latitude from the torrid to the frozen zones, true only to its instinct of adhering to humanity for its propagation.

The history of its propagation in this continent all goes the same way. Who doubts that it was first introduced in 1849 by emigrant ships, both at New Orleans and Staten Island? And how easy to trace its progress from these two points, especially from the former to Cincinnati. Who has ever known it to outstrip the travel on our great national thoroughfares? The savages on our Western frontier have felt its influence only as they have been brought into contact with the white man carrying in his person the seeds of the malady. Before our people had pushed their intercourse beyond the Rocky Mountains, the disease made but feeble efforts to reach even the eastern slope of this great mountain range; and indeed it proceeded but little west of the Mississippi, north of 30° of latitude, until it found a more densely populated region in Mexico. Here it found large cities, great roads, with the human intercourse produced by the wants of a civilized people; and here, true to its native instincts, its pestilential influence was great. And when it did find its way beyond the Rocky Mountains, it was by the Panama route. In 1849, and subsequently, it has, on various occasions, made its appearance among the caravans bound for California by way of the Great Salt Lake, but has hitherto, so far as we know, failed of reaching much, if any more than half way.

The islands of the Pacific have not yet been visited by cholera. The continent of *Australia*, with almost all of Africa, has hitherto escaped, showing that the disease has no power of self-propagation beyond that of human intercourse. The savage regions of Labrador, of Lapland, of Nova Zembla, may exist forever without a visitation from this dreadful scourge, unless accidental intercourse with civilized nations should unfortunately spread it among them.

The opinion that cholera is contagious, has steadily gained ground since the theory was first proposed. As long ago as 1830 we adopted that belief; and since that time we have seen everything to confirm us in that opinion. Its opponents have been driven from one position after another, and every new position has been a new concession, until, in effect, the whole ground is at last conceded; and believers in contagion have little to labor for, a consummation they have never doubted.

MORTALITY.—From what we have before said in reference to the action of the Board of health, it will be apparent that

no dependence is to be placed upon their reports, in estimating the number of deaths from cholera in Cincinnati. As a proof of this we may mention that they reported but 75 deaths from May 10th to June 15th 1849. Yet we know, from personal observation, that on a single street, (Dublin), with a populatian of only two or three hundred inhabitants, 24 deaths occurred within that time, and that at the same time, not a few had occurred on Fifth. The Welsh too had suffered much before the 15th of June, as well as the Irish connected with the river business. Indeed, all the time from the 10th of May, or earlier, we are sure that the malady was spreading with fearful rapidity, and that by the 15th of June, the mortality was nearly as great as at any other time.

Much greater dependence may be placed upon the statements of the Catholic clergy, for they know, almost to a certainty, the number of deaths among their people. I am informed by Bishop Purcell that 3000 of their number died from cholera in 1849; and this we can easily believe, when we remember a fact before given, that one church alone, lost 1300 during that year.

The Protestant Germans, as I am credibly informed by one of their clergy, lost 1000 by the pestilence. Then come the Protestant Irish, Scotch, English, Welsh and French. The first four of these are, and were, quite numerous. It would therefore seem rational to suppose that among all of them, there were 1000 deaths; and it is certainly a moderate estimate to suppose that the same number occurred among our native population; so that we can not be far wrong in placing the mortality, in 1849, at 6000, or about one in sixteen of our whole population at that time, estimating this latter at 100,000.

The reports of the Board for 1850 are, no doubt, more accurate than those of the former year. They show, from the 1st of July to the 13th of August, 851 deaths. We feel sure, however, that the number of fatal cases during that year was greater than here set down; for the Catholic Irish, alone, lost 300 by cholera that summer. It is true, however that this people suffered more than any other class during that year. It will probably be about correct to place the mortality of 1850 at from 1200 to 1500.

Of the 6000 fatal cases in 1849, probably not more than 1500 were subjected to any medical treatment deserving the name. The causes of this state of things we have alluded to in reviewing the action of the Board of Health. We have

thus shown to what extent quackery is responsible for this fearful mortality. We have seen that it was not the prejudices of the ignorant, the poor, or the uncultivated rich, alone, that the physician had to encounter, but that all classes, or a portion of all, the rich and poor, the lettered and unlettered, the schoolmaster, the lawyer, and the clergyman, were found in the ranks of quackery. Not a few of the latter class not only adopted the notions and used the medicines of the quack, but aided in palming his empiricism upon their flocks and upon the public. It is but justice to say, that the more learned and talented of that profession, did not descend to this work of destruction.

There was a time, during the palmiest days of Greece and Rome, when the healing art was cherished with especial care; but when the hand of Destiny had cast the vail of the dark ages over those devoted empires, and the science of medicine had been driven to Arabia for shelter, the priest substituted incantations for science, and charms for prescriptions. Those once cultivated and mighty nations bowed their necks to the yoke of the Goth and Vandal, and for long ages quackery triumphed under their sway; then came depopulation and woe. But the light of reason once more shone, and the hidden stores of literature and science were again brought forth, from the obscurity in which ignorance and bigotry had entombed them. Medicine came forth from its distant retreat, and since that time has been cultivated by every enlightened portion of mankind. Men of the most expanded intellect, and the profoundest thought, both in the Old and New World, have devoted their time and talents to the cultivation of this time-honored profession. But here in Cincinnati, its population suffers a loss by cholera of 6000 souls, while her physicians are permitted to prescribe for only one fourth of this number, so that nearly 5000 died from quackery, or without medical attendance of any kind!

SYMPTOMS.—We shall not attempt an accurate and full description of the symptoms of cholera, but shall give only such a general idea of the leading characteristics manifested here, as will be necessary to a correct understanding of the treatment here practiced. We divide the progress of the disease into four stages: 1st, the *premonitory symptoms;* 2d, *cholera well defined*; 3d, *collapse*; and 4th *reaction.*

1. In the first stage we did not always find diarrhœa, though that was without doubt a general symptom. Where it did not occur, there were loss of appetite, nausea, giddiness or pain

of the head, with, occasionally, cramps of the muscles of the legs and feet, and often pain in the loins. After all, or some of these symptoms had continued from a few hours to several days, they exploded, either into the symptoms accompanying the second stage, or into dysentery.

More frequently there was diarrhœa accompanied by a sense of numbness at the epigastrium, and the other symptoms above enumerated. These were generally, if not always accompanied by a scanty secretion of urine. These symptoms often continued for days before rice-water dejections made their appearance. We saw one collapsed case that had been preceded by many of the above symptoms, such as diarrhea, cramps, especially at night, loss of appetite, and depression of spirits, for a period of three months. The patient died.

It was often difficult to arrive at a correct diagnosis between common diarrhœa and the first stage of cholera. Our own conclusions were based upon the following inquiries: 1. Had the patient been much exposed to choleraic influences? 2. Were the dejections lighter colored than in common diarrhea? 3. Were they more copious and debilitating? and 4. Did they occur from any cause independent of diet and sudden exposure? If these interrogations were answered in the affirmative, we felt pretty certain that the patient had cholera in its premonitory form, and that it was liable to explode into the second stage at any moment.

The quacks, *en masse*, called all cases of cholera, *cholerine*; and of course claimed the credit of curing cholera when really their cases were nothing more than common irregularities of the bowels. We could point out not a few instances where persons were pronounced to have had cholera several times. A delicate lady told me she had the disease twice in 1850. She said she had no diarrhea, no cramps, no vomiting; but that she had no appetite, and *was sometimes hot, and sometimes cold.*

We asked what the doctor called her disease. "Oh!", said she, "*he called it dry cholera, and said it was just as bad as any kind.*"

During the premonitory stage the pulse was more frequent than in health, with less force. The stroke of the heart was quicker, as well as more frequent, than natural, but always showed decided evidence of debility or want of muscular power.

2. In the second stage we generally found the following

characteristics: The surface generally cool, or cold, though sometimes warm and rather dry. When cool, moderate or free perspiration. The eyes were sunk deep in their sockets; and the whole face had a veinous color, which was sometimes slightly observable in the premonitory stages. This veinous hue, of course, varied in intensity. The ears, hands, and feet, had less warmth than the general surface; the tongue even more cool, and the breath below the natural temperature; great thirst; cramps of limbs, but especially of the muscles of the hands and feet; this symptom much more frequent in adults than in children, in which latter, indeed, they were, in general, mercifully absent. Diarrhœa, which in the first stage had been moderate, wanting, or suspended for hours, now burst forth into copious purging of that peculiar character resembling rice water. This clear watery fluid with floating sediment was universal in subjects under the age of puberty, and general in persons under 40 years of age. In the old, the dejections assumed the appearance of dirty soap suds, and occurring mostly in persons advanced in life, it was much more ominous than rice water, of a fatal termination. The periods between the evacuations were various. When short, we think there was less fluid discharged in a given time than when the evacuations were less frequent.

It was appalling to witness the depressing effect of large evacuations upon the pulse, the latter sometimes becoming almost extinct, from comparative vigor, after a single motion. The discharges were sometimes involuntary, the least movement causing a stream of watery fluid to flow off; and even when perfectly quiet this would sometimes distill away. During this stage, if at all, vomiting occurred. This symptom was not always present. When present the food previously taken, frequently some hours before vomiting set in, was first thrown off in an indigested state. After these emissions but little, in general, was vomited but drinks, and the peculiar liquid similar to, or identical with, the dejections. We frequently observed that emesis, even more powerfully than purging, reduced the force of the pulse, and, of course, had the effect of hurrying the patient more rapidly into the stage of collapse. We have repeatedly kept a finger on the artery during emesis, and felt it growing weaker and weaker, until it became imperceptible before the vomiting had ceased.

3. The third stage, or that of collapse, was characterized by the usual symptoms. The pulse persisted much longer at

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the wrist in bad cases in old persons, than in the young. At the temples, it generally became imperceptible as early as at the wrist; indeed, in the old, we think it sooner disappeared at the former than at the latter point. The carotids could, in general, be felt until very near the fatal termination. We had a case in 1849, however in which they became imperceptible six hours before death. This was a lady, 72 years of age, who had slight headache and vertigo, with sickness at the stomach, without diarrhœa or vomiting, for 72 hours. We saw her six hours after vomiting and purging had set in, when she had involuntary dejections resembling dirty soap suds, before spoken of. She remained sensible until six hours before death, when coma, with the absence of pulsation in the carotids, took place, and she died 23 hours after purging began.

The symptoms of collapse often gave rise to the belief that medicine had produced effects which were, in reality, the result of the disease itself. It was common for the purging, as well as the vomiting to cease, or become greatly mitigated, very soon after the complete formation of the collapsed stage; and this condition was found to occur in cases having no medical aid. A case of this kind occurred in 1849. A physician was called to see a young man laboring under cholera. Believing it useless to give medicine in collapse, he gave none after that stage had set in. Vomiting and purging soon ceased, and never returned, yet the patient survived three days.

Sometimes, however, both these symptoms continued; vomiting more frequently than purging. This was often the result of improper medication. Blindness was an occasional symptom, and the eyes were sometimes blood-shot. This congestion of the tunica conjunctiva in collapse, is one of the most unfavorable symptoms that can occur. The patient, as in the last stage, tossed from side to side, sometimes for days, and only desisted when debility compelled him to do so. Another prominent symptom, was the total suppression of urine. This sometimes occurred in the latter part of the second stage, and even throughout its whole course. Indeed, when the patient voided urine occasionally during the second stage, there was a strong probability that reaction and ultimate recovery would result without the occurrence of collapse.

It is certainly true that there is in malignant cholera seldom any secretion or excretion of bile, in either the second or

third stage; but we saw one case in which bile in considerable quantity, was discharged at the same time with the rice water dejections, the former possessing such consistency that the distinction was easily made.

We endeavored to ascertain how long collapse would continue before its termination in death or reaction. The following are the results of our investigation. In adults from four to seventy two hours; in children from four to twelve years of age, generally eight hours. For children under four years, it was not uncommon for collapse to terminate in four hours.

4. At the close of the stage of collapse, whether it terminated in death or reaction, it was common, as has been said, for vomiting and purging to cease. This was quite as uniform in the former as the latter event; but when death was to be the result, the patient was more apt to become comatose. In these cases it was not uncommon to find warmth of the surface reestablished about the neck, breast and shoulders, but the breathing remained difficult, even more so, frequently, than it had previously been; and the power of the pulse was very little increased. Still, this apparent reaction occasionally deceived us, for a short time, into the belief that it would become universal, and that the patient would recover. This deception grew out of the fact that the apparent reaction began at the same points with the real. Indeed, the only difference we could discover, in many cases, was in the action of the heart and carotids. In apparent reaction, the heart seemed to have a quicker stroke, and the carotids to vibrate more, while in the real, the contractions of the heart were more deliberate, and the beat of the carotids more gentle; but we must acknowledge that these distinctions are so nice we fear imagination had too much to do with them.

When the warmth once spread over the trunk and began to be developed in the face, we became satisfied that the collapse would disappear; but as to the length of time that would be required for this result, we were unable to form any correct idea. The establishment of the normal action of the kidnies, as manifested by the discharge of urine, was the last circumstance in the chain of facts which gave decided evidence of convalescence. To be sure, it was all important that bile should flow, or in other words, that the liver should resume its healthy functions; but this generally, if not always, took place before the discharge of urine. The patient could

never be considered safe without the occurrence of the latter. The pulse sometimes became perceptible before there was much increase of warmth. The following case is an instance of this, and shows, also, that in emerging from collapse the arteries become filled with blood before they pulsate perceptibly.

Morgan Porter, aged 34, was taken with diarrhœa on the morning of June 23rd, 1852. At 1 o'clock next morning, vomiting and purging began. We saw him at 6 o'clock, same morning, when he was collapsed and still vomiting, but with no pulse, and no discharge of urine for some hours. Seven hours after collapse he still continued pulseless at the wrist and temple; action of carotids very feeble; skin moist or clammy until ten hours after we saw him. There was now a disposition of the skin to become less clammy, and perspiration soon occurred, though not profusely. The debility seemed to be increasing, though the pulse at the wrist could now be perceived; and the breathing, which had been difficult, seemed now even more so. Soon after the return of pulse to the wrist, we observed that the temporal arteries were much engorged, though we could not detect any pulsation. A few hours later their action had been regularly established, and the patient eventually recovered.

TREATMENT.—We can not pretend to give anything like a full history of the treatment adopted by the profession here in general. At the time of the epidemic physicians had little opportunity for an interchange of opinions; and since that time, as generally happens in such cases, it has been very difficult to obtain any precise account of the plan pursued by many physicians. We may feel pretty well assured that almost every plan of treatment ever proposed, was tried by some one of them, and that individual members of the profession were occasionally governed more by the impulses of the moment than by any well digested system, the result of their own investigation and reflection.

A majority of them, we think, were in the habit of combining capsicum, in less or greater quantities, in most of their prescriptions. The quantity generally given, however, was so small that but little injury could have resulted from it; indeed, it is possible that it was sometimes useful. We heard of one case in which a consulting physician recommended, and gave, thirty grains every five minutes. The patient soon escaped from this *dose-ation* by bidding adieu to all sublunary things. The plan of treating cholera by capsi-

cum, was adopted by the followers of Sam. Thompson in 1832; and, as it had proven singularly unsuccessful in their hands, most physicians believed that it would be rejected in the treatment of the disease in all coming time. Even the steamers, who had in the meantime become *eclectics*, had laid *red* pepper on the shelf and taken up with the *black*, when the wild notions of Cartwright were flung before the profession many at once adopted his opinions, and were only cured of their admiration by the appalling results attending their practice.

It was common to direct various stimulating combinations to check diarrhœa during the premonitory stage. These combinations were kept in families, and ordered to be taken in cases where a physician could not be immediately consulted. They were composed of chloroform, laudanum, sulphuric ether, camphor, &c. Mixtures with soda or other alkali were often directed. The combinations of the first of these articles were, no doubt, useful in preventing the disease from running into the graver forms. We have doubts whether the alkaline preparations were ever useful; but of this, more hereafter. Both physicians and apothecaries often directed mixtures of which the leading articles were tincture of catechu or kino. We believe many persons administered sugar of lead, with opium, capsicum and, sometimes, blue pill. This was a favorite combination with Prof. Drake.

A few physicians measurably adopted the notions of Dr. Hawthorn, of Belfast, Ireland, and, notwithstanding their absurdity, prescribed accordingly. We believe, however, that these opinions were soon given up, and the practise abandoned. We knew of two cases treated by this method, both of whom succumbed.

We early adopted the conclusions that the medication of malignant cholera was but too often directed by conclusions conceived during moments of excitement, and that opinions formed in times of calm deliberation, seldom characterized the treatment of a disease so grave. We saw in, and around, the city of Wheeling in 1832, enough to displease us, even, with our own doings. We felt that there was something wrong in the treatment, for in all that period, we saw no case of collapse recover, though we had heard of such cases surviving, and longed to see one get well. We saw enough, too, to convince us that too much reliance had been placed on capsicum and various narcotics, especially upon opium, which last drug had on several occasions, we thought, produced an

unfavorable effect. We determined to take a new stand, to avoid these errors, as far as possible, and to be governed rather by our own deliberate judgment than the extravagances of others, and to step aside, when we thought it safe to do so, to use such new methods of treatment as seemed worthy a trial. This determination we adhered to in 1849 and 1850.

FIRST STAGE.—When a patient said to us that he had no diarrhea, but otherwise had symptoms of cholera, such as cramp, slight nausea, &c., we were much in the habit of directing a grain of opium and five grains of calomel at bed time, and ordering, if the calomel did not operate by morning, a small dose of castor oil or rhubarb. After the bowels were evacuated in this way, we directed a blue pill every, or every other, night, for a short time. Each of these pills was accompanied by a fourth or a half grain of opium. So soon as the irritation of the stomach and bowels was quieted by this course, we directed a tablespoonful of the compound tincture of cinchona, or more frequently the same quantity of brandy, after each meal. The dose of these remedies, of course, was to be increased or lessened according to the circumstances of the case, age of patient, &c. To these means were often added a warm or cold bath once a day and light flannel next the skin. The patient was enjoined to avoid all places of public resort, excepting church once a week, as well as undue excitement of all kinds, and the heated rays of the sun. All meetings held in basements, were to be especially avoided; and the sleeping chamber to be freely ventilated, indeed never closed unless to keep out rain or the intense heat of midday, and as few persons to occupy his dormitory as convenience would permit.

Where diarrhœa existed, or afterwards supervened, the patient was directed to take about two grains of calomel with half a grain of opium every two or four hours, according to circumstances, until the bowels should feel comfortable. If opium was found to disagree with the patient, camphor, in equal quantities with the calomel, was given. To these were added small portions of morphine in doses ranging from the twentieth to the twelfth of a grain; and, if there seemed no danger of exciting vomiting, the fourth of a grain of ipecacuanha was added. We occasionally had pills, made with one eighth of a grain, each, of opium and ipecacuanha, and one half grain of calomel, which, in mild cases, were directed to be taken every hour or two. If the skin was

found dry and warm during this stage, all the ipecacuanha that would be borne without risk of vomiting, was given.

In all stages of premonition the oil of turpentine was used, as a liniment, every four or six hours. The application was principally made to the abdomen, but often extended to the back, and even to the extremities. Occasionally baths of mustard water were ordered for the feet and hands.

The food was crackers and tea, or weak coffee, with the fleshy parts of mutton or beef; and young chicken was not objected to. Rice, sago, etc., were allowed. Lemon juice might be added to the drinks in any quantity desired. When able to move about, the acid summer fruits such as strawberries, raspberries, and blackberries, were admitted.

This plan of treatment had a most happy effect, and convinced us that few deaths would have occurred, if the advice of physicians in reference to sanitary regulations had been followed, and judicious medication had been used. We are met by the objection that physicians themselves suffered severely, and it is true that eight of them died in 1849; but it should be remembered that no class of persons were so little able to avoid the auxiliary causes of cholera as physicians. We remember, too, at least three physicians who fell during that year, who not only paid the most unceasing attention to their professional duties, but also to those of their respective churches, and even attended funerals frequently, when much worn down. These were Prof. Harrison, Dr. Baker, and Dr. Mulford. Could physicians have exercised the same care which they recommended to others, we must believe that few, or no deaths would have occurred in their ranks.

There is a curious fact connected with recovery from the first stage of cholera. It is this: that where diarrhœa is checked in the first stage, it is more difficult to get clear of the effects of the disease than where reaction did not take place until after the occurrence of the second or third stage. Where this had taken place in the second stage, the patient would often completely convalesce in a few days.

SECOND STAGE.—In the treatment of the second stage we gave five grains of calomel and half a grain of opium, every ten minutes, until our patient had taken twenty grains of the former and two of the latter. With each dose of the medicine was given one teaspoonful of brandy with a small quantity of iced water to wash it down. If the case seemed urgent, we gave fifteen drops of laudanum with each dose, for two or three times. In female cases the opiate was given in

little more than half the quantity, and two or three grains of calomel were given instead of five. We preferred giving, at least the calomel, in the form of pill, as being more apt to reach the stomach, and be retained there, than when given in powder.

If, during this time, there were cramps of the muscles of the extremities, or of the abdomen, sinapisms were directed to those points; but in all cases the abdomen was occasionally rubbed with oil of turpentine. Not unfrequently flannels were moistened with the oil and applied to that region, so long as they could be comfortably borne.

At the end of the first forty minutes, if there was no abatement of the purging or vomiting, and if there was no urine, or but little, discharged, we directed three grains of calomel, and the twentieth of a grain of opium, to be given every ten minutes until twenty doses had been taken, or a mitigation of the symptoms had taken place. If, after the twenty doses had been taken, reaction had not been established, and the rice-water discharges continued, we persevered in the use of calomel and brandy; the former in two grain doses every ten or fifteen minutes, the latter in half teaspoonful or teaspoonful doses with iced water. This course was continued until either collapse or reaction supervened.

One of these generally occurred by the time that eighty grains of calomel, and two or three grains of opium had been taken. In some instances but one grain of calomel was given every ten or fifteen minutes, and that without opium; for we seldom gave more than from two to four grains of opium in the treatment of any one case. Small doses of this drug were given in the management of the disease in females; and here we much preferred some preparation of morphine to the opium itself, as we thought the former had a less deleterious effect on the brain.

To slake thirst, small pieces of ice were directed to be held in the mouth as often as the patient desired. Iced water was also given in small quantities, and cold lemonade. We did not object to vinegar and water as a drink, believing, as we did, that the lack of acids in the fluids of the system might in that way be supplied. The almost total abandonment of acid fruits and vegetables in those days, so far from warding off attacks of the disease, was, in our opinion, often injurious; and seemed of itself, to indicate the use of vegetable acids. The repeated chemical analysis of the excretions of cholera patients, by my friend Dr. C. H. Raymond, who failed to de-

tect the presence of acid in any, seemed to point more strongly to that mode of treatment.

We were always careful, of course, in giving drinks, to prevent, as far as possible, the occurrence of vomiting. The recumbent posture, and the utmost quiet that could be obtained, were insisted upon.

So soon as the symptoms indicated the termination in reaction, medicine was withdrawn. The rice water purging being arrested, and a more regular and healthy action of the heart and arteries established, the patient was allowed a rest of from six to twenty-four hours. The calomel already taken generally acted as a cathartic within the above limits, or, at farthest, within two days. We found that to stimulate the peristaltic action of the intestines, before the establishment of a normal action of the abdominal secretions, was generally unnecessary, and often unsafe. The brandy was continued until the pulse rose, and the natural warmth had become generally diffused. Indeed, in numerous instances, especially amongst females, and the temperate, no other remedies than the calomel and opium or morphine, were used.

An occasional symptom, common both to the second and third stages of the disease, and which we failed to mention in its proper place, may be given here. This is a claret color of the dejections, and rarely of the matters ejected from the stomach. Of the first, we saw two cases, one of them an old man, a stranger, who had neglected his case until he was collapsed. He had fainted before we saw him. We found his pulse nearly imperceptible, and his countenance having that blue appearance which indicates the worst form of the disease. The dejections were of the color of dirty soap-suds when we first examined them. We concluded to call a consulting physician, in this case, and were governed by his opinions. The prescriptions consisted of opium, capsicum, and calomel, in pretty free portions. We believe they were five grains of capsicum, ten of calomel, and one of opium, every fifteen minutes. The patient vomitted after each dose, and very soon claret colored discharges from the bowels made their appearance. We remained all night with this patient, and watched every symptom. He lived about ten hours from the time we first saw him, but exhibited no other unusual symptom beside the one here given

Another case of this kind occurred in the practice of my son, the late lamented Dr. Foster Carroll, in 1850. The patient when first seen, was on the confines of collapse, purg-

ing and vomiting claret colored fluid. This case was treated with calomel, and very small doses of opium. Of the latter, we think that not more than one grain in all was given. Of calomel, one grain with a little brandy and water, every five or ten minutes. The patient did not collapse, and recovered within a few days, reaction having taken place some twelve or fifteen hours after the doctor first saw him.

THIRD STAGE.—We come now to the treatment of the stage of collapse, where death but too often triumphs over nature, and the best directed efforts of the physicians. In no human malady do we feel so much trepidation as we do in the worst forms of Asiatic Cholera; for in most other diseases we have time for deliberation, or can, at least, see with tolerable certainty the result. We meet an individual in the street in apparent health, and converse with him. In an hour or two we are summoned to his bedside, and find that in that time, he has sickened and is already fast sinking into collapse. His tongue and breath are cold; his limbs cold and shrunken; the skin discolored, and the whole surface bathed in clammy perspiration. The eyes are deeply sunken and dull; the vision indistinct, and sometimes wanting for minutes or hours; the pulse no longer felt at the wrist or at the temples; and there is no secretion of bile or urine. The patient tosses from side to side, vomiting, and purging rice water perhaps involuntarily; his limbs are racked with cramps; and he who but an hour or two since, rejoiced in the buoyancy of active manhood, now seems only to claim relief from suffering by death, which too often follows.

The whole affair has been so sudden that all but the medical adviser are thrown into confusion; and he, too, often partakes of the general alarm, and is, to that extent, disqualified for rendering the needed assistance. He considers that all that can be done, must be effected within a very brief period; and he directs, perhaps, more than can be useful, forgetting sometimes the powers of the human stomach. He does not reflect that this organ is not a steam-boiler, and that heat can not be restored by irritants, where disease has so suddenly prostrated the powers of life.

The question now is, how to arrest the rapid tendency to dissolution. We have seen that much of the fluids of the system have been carried away in a serous and alkalescent condition, and that the system has shrunk, within a short time, from its usual fullness to a state of great emaciation. The pulse is now only felt in the carotids, yet the patient

still breathes; and vomiting and purging have ceased, if not kept up by improper medication. The whole circulation which now sustains life, is confined to the brain, chest, and abdomen.

What now will be the effect, if, after the patient has lost twelve or fifteen pounds of fluid, and the remainder is confined to the great centers of the body, you attempt to diffuse suddenly this quantity, already too small, throughout the general system? The answer is clear—*death in almost every case.* The heart is already feeble, contracting upon a small amount of fluid just sufficient to keep up its pulsations, and the brain has barely an adequate supply. Withdraw this, and death must necessarily result.

We saw a most decided example of the effect of this kind of treatment in a cholera hospital in 1849. A boy, some fifteen years of age, had been brought in, collapsed, twenty-four hours before we saw him. His physician and nurse thought he must die. He was placed on a straw bed and nursed with care; but scarcely any medicine had been given, and he was very lightly covered. He threw himself much about, and was often nearly naked. Another patient, two or three years younger, had been brought in before our visit. This patient was still only in the second stage, but was approaching the point of collapse. The house physician had directed unslacked lime in a moistened state, to be applied to his cold limbs. The warmth thus produced had re-established the almost extinct circulation, and he was thought to be doing well. We found the stroke of the heart very feeble, and heaved a sigh as we turned from him believing that reaction had been prematurely brought about by external heat. We examined the other patient, spoke of a little brandy and water to be taken occasionally, and felt that he would yet recover. On the following day this patient was better; the other was dead. The result in these two cases, in our opinion, amounts to almost positive demonstration of the truth of our position.

hen we were called to a patient who was either in a collapsed state, or rapidly running into it, we pursued the following course. In the first place, we directed that all the windows in the chamber should be opened; that the attendants should be few; that they should strictly follow directions, and should do as little to discourage the patient as possible; that friction should only be applied when the patient had cramps, and that even then the friction should be moderate. We directed that the limbs and body should be covered with flan-

nel, or a light blanket or two, or only to an amount that was comfortable to himself; that the discharges from the bowels or stomach should be immediately removed; that the abdomen should be oiled with turpentine, and that sinapisms should be used as directed in the treatment of the second stage. Drinks should be given in small quantities, and should consist, as before, of iced water or lemonade, unless the patient should prefer something else. Small pieces of ice were allowed the patient to hold in his mouth.

(*To be continued.*)

A case of gun-shot wound. By K. W. REYNOLDS, M. D., *of Picatonica, Winnebago Co., Ill.*

The following case occurred in my practice two years since, during my residence in California. Its principal interest and that which was new to me was the adhesion by the first intention of a gun-shot wound, about eight inches in length, extending half around a large joint, and complicated with single and compound fracture.

The result was much better than I had reason to suppose it would be. I only expected to unite a small portion of the track—that immediately over the joint—which was very desirable from the fact that all injuries of the joints in that climate were obstinate to treat, and particularly dangerous in their results.

CASE.—August 1st, 1852, 3 P. M.—Called to see Wm. D. Moore, aged 18, American, enjoying excellent health, and possessing good habits. While endeavoring to wrest one of "Colt's Navy Pistols" from the hands of a drunken man was accidentally shot in the left thigh. The ball entering the flesh at the inner side of the rector femoris muscle, fracturing the femur transversely, making a circular wound in the soft parts about one and a quarter inches wide, and three quarters deep, passing obliquely inward, through the vastus internus to the cellular tissue, backward and downward for three inches; thence outward and downward, lodging between the heads of the tibia and fibula, and between the belly of the popliteus and head of the tibialis posticus muscle.

TREATMENT.—After probing the wound, reducing the fracture and thoroughly cleansing the orifice, I introduced a pledget of lint therein, only; then made a compress of cotton cloth one inch wide, half an inch thick, and eight inches

long; and after wetttng it in cold water carefully applied directly over the track of the ball, and retained it in this position by another compress of the same length three inches wide, and a roller two inches wide, extending two turns beyond either end of them. Supported leg in natural position by pillows. Ordered lotion of hydrochlorate of ammonia to be applied every half hour.

10 P. M.—Ordered anodyne soporific. Continue lotion during the night.

August 2d.—Water dressing continued. No pain of consequence under the compresses. Bowels moved as usual, without cathartics. Low diet.

3d.—Continued dressing. Fresh pledget in external orifice. No suppuration other than from this part. No pain in track of the ball. Applied splint making counter extension in the perineum.

8th.—Continued treatment of the 3d inst., to date. Removed compresses and examined the track of the ball externally, and with the probe. *Not a single symptom at any time previous, nor at the present moment, contra-indicating adhesion by the first intention of the entire track of the ball,* hence have suffered the bullet to remain. Removed pledget and ordered water dressing to the orifice. No compress nor bandage, excepting over the splints.

9th.—Carefully examined the track again with same result. Treatment continued.

17th.—Changed splint on account of deep ulcer in left side of the perineum. Applied counter extension by means of a strap passed around the opposite thigh, resting, by pads carefully adjusted for the purpose, against the tuber ischii and trochanter major. From this strap two others passed, and were fastened to the splint. The foot board was then nailed to the bedstead, and the right foot confined to a motion of ten or twelve inches. Ordered liquor plumb. diacet. to ulcer in the perineum, previously washing well with soap and water. Laced stocking padded ordered.

20th.—Ulcer in the perineum much improved; ordered resin cerate.

The method of counter extension adopted on the 17th, appears to answer admirably.

24th.—Was compelled to remove all extension on account of ulcers around the ankle, over tendo Achillis and instep. Applied fermenting poultice to these. Bone has adhered pretty firmly, though callous small, excepting on a small por-

tion of the outer side, there full and firm. Since the 17th has ate and rested well; general health excellent.

25th.—Ordered cataplasm liniment to ankle; sloughs nearly off; external wound of bullet healed up.

26th.—Cerate resin to ulcers.

September 5th.—Everything doing first-rate. All ulcers nearly closed. Patient moved in a wagon to his home, six miles from the place of confinement.

December 25th.—Mr. Moore called at my office, and informed me there was no perceptible difference in the length or convenience of using either leg. No sensation whatever produced by the bullet in the leg. Was mining as usual, and doing each day as much work as any man in the claim.

Conception previous to menstruation. By M. WEMPLE, M. D., *of Harmony Owen Co., Ky.*

I have endeavored to give below the history of a case of conception previous to menstruation.

Amelia A——, aged 13 was seized with labor early in the evening of the 31st of January of the present year. A midwife was called immediately and continued with the patient until the middle of the following day, when I was called, the messenger stating "that the midwife could not find the mouth of the womb."

I found the patient very quiet, except at long intervals a slight pain was felt. I was told by the midwife that the labor had been more regular in the morning, the contractions continuing longer. Upon examination per vaginam, the os uteri was found dilated sufficiently to admit three fingers, the soft parts in a yielding condition; the presentation natural.

Considering the case one in which the uterus had lost its contractile power in a great degree, I administered a scruple of ergot which seemed to have no effect, except producing nausea with copious emesis. After waiting an hour I gave a drachm of ergot which was retained, and the pains became more regular and of longer duration. After an hour or two they ceased and the ergot was given again with the same effect. At eleven o'clock, P. M., the head passed part way through the superior strait of the pelvis when convulsions set in.

Not having either instruments or chloroform at hand, I

sent for Dr. Morris who arrived at 3 o'clock, A. M., February 2d. By this time the pulse was 120, full and hard; os uteri contracted; 18ʒ of blood was taken from the arm and the covulsions ceased for a short time, but came on again and 6ʒ more was taken and a grain of sulph. morphia given, after which there were only two convulsive fits; the patient continuing in a comatose condition until the morning of the 3d, when she revived and under the influence of a drachm of ergot was delivered of a dead child.

4th.—Patient appears very much prostrated; fecal discharges copious, from purgatives taken previously.

℞ Hydrarg. cum crete gr—pulv. doverii gr. 5; wine ʒii, every three hours, until the following day.

5th.—Patient appears better. Bowels checked; some febrile action.

℞ hydrarg. submuriate grs. iii; to be followed in six hours by a small dose of oil; continue the wine.

6th.—Patient better. In good spirits; seems to be approaching convalescence.

Such is a short history of the case. I inquired of the girl's mother and also of a lady with whom she had been living, and of the girl herself, after her recovery, whether she had ever menstruated, and was told that she never had. During the first months of her pregnancy her mother supposed her to be suffering from retention of the menses, and treated her accordingly, *but without producing any menstrual flux.*

Proceedings of Societies.

Transactions of the "Montgomery County Medical Society."

[We give below the discussion on the paper of Dr. Carey, which appeared in our last number. The name of one of the participants in the debate is omitted by special request.]

Dr. Lamme, of Centerville, hoped that the many points of interest in the paper would be discussed by the Society. The diseases spoken of, had not come in his range.

Dr. —— took the floor, and remarked that, after a paper was in the possession of the Society, it was its property, and the members were at liberty to discuss the propositions presented freely. He did not know how far criticism might be

justifiable under some circumstances. He expressed much astonishment that nothing new or interesting had been brought forward by the committee. From intimations given at the last meeting of the Society, he anticipated a finished disquisition upon skin diseases, together with many novel facts, which would strike the Association with astonishment. But it had turned out just about as he expected; divest the report of its verbosity and nothing remains. The single declaration of the existence of scarlet fever, and a large fatality, was not satisfactory. He would like to know the character of disease and the method of treatment resorted to. He had not seen any fatality from this disease during the past season.

The last class of cases, denominated scarlet fever in the report, was no scarlet fever at all; it was simple tonsilitis, or diptheritic angina. Scarlet fever could not exist without eruption; the latter condition was essential to the existence of the disease. The affections following these cases and denominated regular, were coincidental. After expressing his disbelief in the controlling influence of medication in scarlet fever, he went into a recapitulation of the ordinary method of treating the disease.

When Dr. —— wanted to vaccinate, he sent to Dr. Smith, of Boston, who sent him fresh vaccine matter, upon quills. In his regular families, he always revaccinated as long as it would take; after this, he considered them exempt from small pox during the remainder of their lives. He thought Dr. Wilks, of New York, knew more about vaccination than any body else.

Dr. Crook, from the committee, replied, that he did not remember who made the motion to appoint a committee, but the instruction of the Society, now fresh in his mind, *viz.*, to present in a concise and comprehensive manner, the leading features of cutaneous diseases for the past four months. They have endeavored to collect all the important facts within their reach, and to bring before the Society a transcript of what had been occurring among us. Books had not been consulted, and perchance the gentleman who had just taken his seat, might not have been asked for his opinion; the appointment of the committee was, as he thought, designed for a different purpose entirely. They were not expected nor required, as the one to whom he was replying, had demanded, to "bring up something new and altogether unheard of in the profession," or give a summary of the discordant opinions of all who have written or spoken upon this subject, nor to fur-

nish the Society with novel fancy sketches, drawn from a fevered imagination. It was practical, common sense facts, which the Society sought, and that far, the committee had filled their mission.

Dr. C. continued, I have seen very many cases of scarlet fever, within the range of time contemplated in the report, without the eruption, possessing all the other essential features of the disease, viz: papillated tongue, lesion of the fauces, characteristic pulse and constitutional symptoms. But evidence more conclusive than all these, is found in a class of affections following immediately in the wake of these cases, which are pathognomonic almost scarlatina. I allude to the sequel mentioned by the committee in the report.

Dr. Aul entered the room about this time and enquired of the President if it was a free fight. He said he had not had the pleasure of hearing all the remarks upon the paper, by the gentlemen who had preceded him in the discussion, but the report which he heard in the forenoon was surely a good one, and such labors ought to be encouraged. He added. I furnished the committee with some of the facts presented in the paper, which I have never seen before in my life, (alluding to the coexistance of vaccination and varioloid in the same constitution.) The pustules upon the face and tongue of Mrs. H.'s child, were doubtless the manifestations of small pox. The delayed appearance of the vaccine vesicle, mentioned in the report, was surely novel, to say the least. In my long experience, I have never seen anything of the kind. Indeed, with such precision has the immortal Genner described the appearances of the pustule at its various stages, on the third, fifth, eighth, and sixteenth days, that the slightest departure from this, immediately arouses my suspicions.

Dr. A. had seen very many cases of disease during the past winter, presenting all the symptoms of scarlet fever, without the eruption; some of which, were followed by genuine sequela of scarlatina.

Dr. McDermont said that on account of absence from the city, he had not seen much of the recent visitation of scarlatina. What he had seen, however, confirmed the position advanced in the report, viz: that scarlet fever did exist without the eruption. Mentioned a family furnishing five cases, three of whom had the eruption and the other two had not; yet in all, aside from the efflorescence, the symptoms were exactly the same, leaving in his mind no doubt, that they were all induced by a common cause and subject to the same laws.

Dr. Mc. concurred in the view that vaccination, if perfect, will insure the subject against small pox forever, yet he thought the cicatrix, such as described in the report, was sure evidence that the possessor was fortified against the contagion of small pox. Alluded to an epidemic of small pox which prevailed at sea, on board a vessel of which he was a passenger, in 1849. There were sixty cases. These persons had been vaccinated, but exhibited an imperfect scar. All who possessed a genuine cicatrix escaped. In conclusion, he expressed his extreme satisfaction with the report. It contained very many interesting and important facts connected with the diseases under consideration, and he thought it highly creditable to the authors. He was surprised to hear any of the members express a dissatisfaction with the paper on the ground that it contained no doctrines that were new and astounding. The objections he thought were complimentary to the committee, in view of the spirit in which they were presented.

Dr. Sheets remarked, that he had but little to say—the report embodied his views; but as it had been assailed, he felt in duty bound to raise his voice in its defence. I will allude to a single objection made by the member who opened the discussion. He opposes the cases in the report being called scarlet fever, because, forsooth, they lack the eruption, though they present the other characteristics. Is the eruption, then, pathognomonic of scarlatina? The absence of this one sign is not sufficient evidence to my mind, to exclude these cases from a classification among those of scarlet fever, and entitle them to the appellation of tonsilitis. We all know that every symptom is seldom found present in any disease; then why expect it in this? I believe that the eruption is often overlooked, as it occasionally is present only upon certain parts of the body. The severity and fatality of many of these cases, are, to my mind, strong indices to where they belong.

The President expressed great satisfaction in the report. It contained very many points of interest, worthy of being treasured by every one. He daily reproached himself, at not having a regular digest of current diseases as they had presented themselves to him in this locality, during this century. Though they had been brief, notes would be almost invaluable. He strongly urged upon the younger members of the profession, the great importance of keeping a diary, not to be satisfied with recording anomalous cases, but disease as it presented itself to them in daily practice. After citing numer-

ous instances of the prophylactic powers of vaccination, Dr. Haines declared that scarlet fever could and often did exist without the eruption, at least being perceptible; indeed, these often proved the most difficult and unmanageable cases. It might be, that the attention of the physician was so engaged with the throat trouble, that they occasionally overlooked the eruption, even when present; but I do not consider the rash as essential to the existence of scarlet fever, by any means.

Dr. Brennen stated that he was comparatively an infant member in the Society, and felt a delicacy in participating in its discussions. He said that when quite young he was inoculated, but upon being exposed recently to small pox, he was vaccinated, which took well. He had been absent from Dayton during the winter, and had not seen much of the diseases presented in the report. As the labors of the committee had been assigned by the Society at a late meeting, he thought that it was not gallant in the members to find fault. He liked the report very much, and had been instructed by it. The onslaught, made by one of the imaginary *big guns*, was unjustifiable and calculated to intimidate the junior members of the Society.

Dr. Carey felt gratified that the Society, with such great unanimity, had found something of interest in the report. The cordial reception which it had received, amply remunerated him for all his trouble. It will be remembered by those who were present at the last meeting, that after shirking, the committee was formed, the duties assigned and forced upon them in a resolution, offered by the *fault finder*. He, Dr. C., risking the charge of egotism, would assert, that circumstances were presented in the report of rare occurrence, and consequently of interest. No claims of excellence were set up, farther than that it was a summary of facts—a mirror of a certain class of diseases which have visited our city during the past six months. Sufficient material was in the possession of the committee for a small volume, which they esteemed a trespass upon the intelligence and time of the Society, to give in detail. Facts, and not *fancies*, were what the Society wants, and *facts* had been presented. He could amplify to almost any extent, if necessary, in sustaining and illustrating the various positions in the report, but fortunately they sustain and illustrate themselves, and require neither.

Dr. Carey said that in the making out certificates for the delegates appointed to attend the "American Medical Association," he felt much the need of a seal bearing the name

of the Society. He had taken the liberty of having one prepared, and, with permission, would present it to the Association. Dr. Crook moved that it be accepted, and adopted as the seal of the Society, and that the thanks of the same be tendered to the donor. The following are the inscriptions: "MONTGOMERY CO. MEDICAL SOCIETY," engraved in the margin; "CADUCES" occupying the centre, overhung by the motto "*Union is Strength.*"

Concluded from last number.

PARIS, February, 1854.

Editors Western Lancet:

Mr. Broca in his paper, mentioned the fact that M. Velpean had treated deviations with a redressor. M. Velpean took the floor, and said: "M. Broca has said that I had, many years since, the idea of an intra-uterine redressor, without ever having applied it. He is wrong. I applied an instrument, and ceased its employment, because I did not feel flattered with its results. It is now fifteen years, that in seeking after an instrument to redress deviated utero, I thought of adopting to a pessary a steno (tige) which would redress that organ.

Without any doubt I had some confidence in this operation, which I wished to practice, and it is to this instrument which I conceived, that I would have recourse still, and perhaps would be better than a great many of those which are to-day in circulation. The results of the first application which I made, did not encourage me to make others. Of five women on whom the instrument was successively applied, three experienced no accidents, but with two others, metritis and metroperitonitis appeared, which forced me to cease its employment. When I saw these accidents develop themtelves, I was frightened, as the cases were only those of simple deviation of the uterus, an affection by no means grave in itself. My love for such an operation was singularly cooled. This is not the only motive which led me to abandon completely this operation; there is another one, theoretical as it may be it has not less the importance. In reflecting on the nature of the disease I had tried to remedy, I saw not only that I would render the patients liable to dangers, but more that the fear of these dangers could not be compensated by the hope of a cure. Indeed, as every one knows, the womb is suspend-

ed in the cavity of the basin, and floats in a movable cavity, which is not even fixed superiorly, so that this organ may deviate with extreme facility before, behind, to the right or left, and in a word, in all imaginable directions. If we apply a redressor to this deviated organ, without doubt it will continue as long as the instrument remains in its place; but we cannot continue it indefinitely. We must end by removing the instrument, and then, at the least displacement of the parts so movable, which are in connection with the womb, it retakes its vicious position. It was from such theoretical considerations, joined to accidents which I witnessed, that I determined not to apply the redressor again. However, in spite of the little confidence in such an operation, excited by the results obtained by such distinguished and honorable practitioners as Simpson, who enjoys in England a just celebrity, and by M. Valleux, who has acquired in France the merited reputation of a good observer, an estimable man, and worthy of belief, excited I say by the results published by these practitioners, I allowed myself to make new attempts with my instrument, as well as with others. I have recently practiced three times, the operation of redressing the uterus, and I have not been any more satisfied with the results than with my first ones. In two cases I obtained only a slight amelioration, and in the third the application of the instrument caused such results that I have determined to lay it aside."

That you may the better appreciate the opinions of Prof. Cruveilhier, on this subject, I give you the conclusions of his paper. First, however, the subject of the report was a young married woman, who was sterile, and on this account naturally suffered much chagrin and disappointment. She lived in a town near Paris, where one of the pupils of M. Valleux resided. She learned from him, that in all probability her sterility was dependent on a deviated state of her uterus. With the hope of having children, she submitted to have her uterus sounded and redressed, but on further consideration concluded to come to Paris and place herself under the care of M. Valleux. He recognized an anteversion, and began the application of thesound, in order to prepare the uterus for the introduction of the redressor. The sounding, however, developed pain and inflammation, and he was forced to desist. Her condition became so critical that Cruveilhier was called in consultation. She however died. With this very brief abstract of the case, let me give you the conclusions drawn from it by Cruverlhier. First, it appears demonstrated to

me, that the *redressment*, or replacing of the uterus, by the introduction of a sound into its cavity, is not always inoffensive. That if the uteri of a certain number of women, I will admit a very large, may support with impunity, not only the introduction of an instrument, but still its presence several hours daily, and even during several consecutive days, there are several with whom the introduction and presence, even for a short time, determines immediately local and general phenomena, which may bring about fatal consequences. Remember, I do not speak of cases where the introduction has been made by inexperienced hands, who tear and perforate the uterine sides, but of those cases in which it is done by the most skilful. Second. But let us admit for a moment, that uterine deviations constitute a lesion so serious, that we ought to pass by the inconveniences which may result in some cases for the employment of the means proper to remedy them, and let us see if the uterine redressor can remedy efficaciously the deviations. I maintain that the redressor can in no way remedy the trouble; that at the most it may keep the uterus in place during the time that it is retained. With M. Velpeau, I believe that as soon as the redresser is withdrawn, the uterus will take its vicious position again.

Third. I ask if the deviation of the uterus in a state of vacuity constitutes in itself a morbid condition? This is the object of this third reflection. The solution of this question is subordinate to another. Has the uterus in a state of vacuity an axis, properly so called? All anatomists represent this organ as floating in the excavation of the basin, where it is only maintained by its ligaments, the vagina and bladder, to which the inferior two-thirds of the neck are united by a cellular tissue quite loose. We may say as to its direction, that it is at the mercy of all the surrounding organs. Thus the fullness or emptiness of the bladder, the rectum, the presence or absence of a certain number of intestinal circumvolutions, in the pelvic cavity, the distensions more or less great, to which the large or round legaments have been submitted during anterior pregnancies, the retraction or relaxtion of the vagina, the difference in length that this canal presents in different subjects; all these things exercise on the uterus the greatest influence. I have said elsewhere (Anat. Descriptome III page 690 and Anat. Path.) that the uterus had not a normal axis, except with young girls or women who have never had children. I am still more decided to-day, and I believe myself able to say, that if the uterus in a shape of pregnan-

cy has a determined axis, that in the state of vacuity it has none properly so called. Now if it is demonstrated that the uterus in a state of vacuity has no normal axis, properly so called, it follows that the deviation of its axis is not a morbid state, and this in effect is proved by clinical and pathological observations. Clinical observation shows us every day in truth, by the touch, through the rectum, either an anteversion or ritroversion, or a lateral inclination of the uterus, in women who do not experience any morbid symptom arising from this organ. Pathological anatomy has shown me, a great number of times, the most considerable deviations of the uterus, either as an anteversion, a retroversion, or even a retrofluxion, in whom no complaint of pain or uneasiness had been made during life. I have even observed some cases of this kind, in which the retro-verted uterus maintained by solid adhesions to the sides of the basin, presented such an obliquity, that the axis from below to above, and from before to behind, was at an angle of 45°. It is because I believe in these facts, that I have said elsewhere (Anat. Pathol.) that I have been often tempted to consider as imaginary, or at least as not being demonstrated, the accidents attributed to retroversion and retrofluxion. Boyer confirms me in this, when he says that retroversion almost never takes place in a state of vacuity, or as I think he means, that this retroversion is exempt from all kinds of accidents.

I have said, speaking of the accidents attributed to anteversion, "These morbid phenomena do not appear to belong to anteversion, but rather to a chronic discharge from the uterus, to a uterine catarrh, in which the proper tissue of the organ participates; the proof is that we observe the same accidents in a pure and simple inflammation of the uterus, independently of changes in the position of this organ. From this I believe I may conclude that they do not constitute in themselves a morbid state; and that the symptoms attributed to uterine deviations ought to be attributed to another reason, and most generally to chronic uterine catarrh, which propagates itself from the mucus membrane to the proper tissue of this organ and developes the sub-inflammatory state, known under the vague name of engorgment. Fourth. Are the deviations of the uterus a cause of sterility? I have said that it was on account of sterility that the patient, the subject of my paper, was submitted to the use of the redressor, and it is more frequently, for the same cause, that this instrument is applied. But when it is established that the uterus has no axis properly so called out

of the state of pregnancy, that the deviations of the empty uterus are not but varieties almost indifferent of the position of this organ, it follows that the deviations are not a cause of sterility. We can prove this fact clinically in the most direct manner, by the touch which shows the same deviations in fecund women as in sterile ones.

It is with this conviction, that consulted several times by young married sterile women, who desired to know of me if they could be treated with the new instrument, whose marvellous cures had been told them, (the instrument is the redressor) I replied, "If you were my daughters, I would not allow you to use it." Yet at that time, I was not aware of any fact, which established that grave accidents and even death might result from the introduction of the uterine sound, even when used by skillful hands.

M. Valleix sent a reply to the Academy, stating that the redressor is a safe instrument, and that he has cured many patients by it. Valleix is one of the physicians at La Petie, and devotes much attention to diseases of the uterus, but especially to deviations. Lisfrance you may remember was one of the surgeons of the same hospital, and was opposed largely by the profession for his peculiar treatment of uterine affections. Valleix it is said, has excited the prejudice of several men of position, becauses he practices medicine and surgery,—the disease of the uterus being considered as belonging to surgery. Valleix has certainly been successful in the treatment of deviations. Any one who visits his service may see that Cruveilheir is wrong when he says that no morbid symptoms arise from deviations of the uterus. He is also wrong, according to Valleix, in saying that deviations are not the cause of sterility of seventeen women who suffered from an anteversion, twelve only had had but one child. Another remarkable case taken from Valleix, on this point, is the following: A lady having had five girls, desired very much to give birth to a boy, but she fell sick after her fifth confinement, and remained six years without becoming *enceinte*. She had an anteversion, which was treated by the intra-uterine redresser. The cure was prompt. A short time after she became pregnant and continued well till the completion of her term, when she was safely delivered.

He has cured one case only by a single introduction of the uterine sound. In the others he was forced to have recourse to the redresser. The instrument (the redresser) was retained in the uterus from one to fifteen and twenty days. He is

frank in confessing that the sound and redresser now and then give rise to pains, spasms and uterine colics, but they were of short duration. Marked amelioration was manifested even when the redresser could only be supported for twenty four hours. The menses have always been more abundant at the next period after the application or introduction of the redresser. In six cases of anteversion no resort to therapeutical remedies was had. In the others, according to particular indications, opiates, cataplasms, and vesicatories over the uterine region were used. Cold injections, slightly astringent were used in all of the cases. One remarkable fact is that ulcerations and granulations of the neck were promptly cured after the introduction of the sound, by a few cauterization by nitras argent. Valleix treats antiversion, antifluxion, retroversion and retrofluxion in the same way—by the sound and redresser. He is very careful in his manipulations. He never allows the redresser to remain during the catamenial epoc as does Simpson. There is great difference of opinion here in regard to the causes of *deviations*. Valpeau and Valleix maintain that the uterus is first displaced and is followed as a consequence by engorgement, and that the only way to cure the engorgement and ulceration is to replace the uterus. Cruveilhier and others maintain that engorgement first occurs and produces the deviation. I hope I shall be able, however, to give you an account of the discussion of the Academy, which will certainly embrace the whole subject. In this connection I may tell you that M. Huguier one of the surgeons of hospital, Beaujon, treats anteversion by confining his patients to bed, with the pelvis raised. He also insists on the patients retaining their urine as long as possible. I have followed him for some time and may say that I have seen no case cured. Velpean's treatment is the same. For retroversion Huguier introduces a mesh into the rectum for the purpose of supporting the uterus in its normal position. But very few women are able to bear it long. In two cases of late inflammation of the rectum was produced, and the treatment was discontinued.

Taken altogether the treatment is worth nothing. Prof. Dubois has had good success with the douche bath of Prof. Kiewitch, of Prague, for the production of abortion in cases where the pelvis is contracted. I have seen it applied in four cases with good results. The women had vitiated basins from rachitis. They entered for the purpose of having artificial delivery produced, so as they might have living chil-

dren. The water used is about lukewarm. The apparatus is very simple and works itself. The stream of water is directed against the os uteri and is continued for twenty minutes. In the four cases in which it was successful, it was applied six times. Generally at the end of the third or fourth bath pains or contractions are developed, which continue until the child is expelled. It is simple, easy of application, innocent, and painless. It cannot but be regarded as a great improvement, on the former plan of producing abortion in cases where this operation becomes necessary not only for the life of the mother, but also of that of the child. The apparatus may be constructed in a few minutes, provided the practitioner has a gumelastic or gutta-percha tube. All that is necessary is to place a vessel holding from half a gallon to a gallon of warm water at a few feet above the bed of the patient, then attach a tube to the vessel and direct it against the os uteries when the instrument is complete and will work quite as well as that constructed here by M. Chariere.—That constructed by Chariene may be used at any elevation, as it exerts sufficient pressure on the water by itself. It is feared here that it will be used by sage femmes and others for criminal purposes so easy is it of application. I may say that the woman is placed in the position for turning or the application of the forceps when the apparatus is applied.

You will have learned ere this that Mr. Hardy of Dublin has invented an instrument for the application of chloroform to the uterus to relieve the pain incident to malignant affections, and to ordinary neuralgia of this organ. Chariere imported the instrument sometime ago, and has manufactured several, all of the surgeons have been using it. As usual they have not been content with applying it to relieve painful affections of the uterus, but have been applying it to produce local annesthesia of abscesses and of painful parts in general. For instance, I saw M. Tuersant apply it to the penis of a boy, prior to the introduction of lithotriptic instruments. Dubois applied it to ulcerated nipples, and indeed in one word it has been put to all manner of uses but the one intended by its inventor. The instrument, as usual, has been so tortured and changed by the suggestions of surgeons and instrument makers that it is difficult to recognize it. Finally Velpeau has had an instrument constructed for producing local anaesthesia with a mixture of ice and sulph. ether, which he believes to be more powerful than chloroform. The trials and observations with the instrument have not been satisfactory, in other words insensibility has not been

produced by Hardy's instrument. I have seen it used for the relief of pain arising from cancer of the uterus with decided benefit, and I have no doubt if confined to this its original purpose, it will be of benefit. M. Richet filling the place of M. Roux of Hotel Dieu, discards this instrument, and uses an open dish containing sulph. ether which he holds near the part, for an example an abscess, until the ether was evaporated. He says he has produced entire insensibility of parts in this way.

M. Claude Bernard, the greatest living physiologist, and who has I think the brightest future before him of any man here, if not in Europe has been recently appointed Prof. of physiology in the Sorbonne.

The Emperor erected the new chair for him. The salary is 6000 francs or about 1200 dollars. Bernard is a fine looking man, with a head well developed. He is still young, not being more than thirty five. He devotes all his time to his speciality, and will assuredly leave behind him more physiological discoveries than any one of his compeers. His manner of lecturing is not good; indeed I may say it is disagreeable. He is a very modest man, seeming to me to fear lest he will break down in his lecture. His course of lectures on the blood which he has been delivering during the winter have been highly instructive. His lectures are attended by a crowded audience.

M. Prof. Roux, first surgeon of Hotel Dieu, professor of Clinical Surgery, at the same hospital is dead. He was the oldest surgeon here, and as you know had a world wide reputation. He died of Apoplexy in his seventy fourth year.

Two months ago no man looked better. He promised to all appearances then to live ten years longer. Indeed I heard him say one morning at his lecture that he intended to live twenty years yet. No man could be mourned more than Roux. He was beloved by all. His goodness of heart, his honesty of character, his kindness and encouragement of young men, his sincerity attached all to him. He was an indomitable worker, and like our distinguished Drake died in the harness. His work, "Forty years of Surgery," is under press, and at the time of his death he was correcting the proof sheets. I should say that he had two attacks of Apoplexy, the first during the beginning of February and the second on March the 24th. No hopes were entertained for him from the beginning, and although he recovered his intellect, with paralysis he remained weak. He insisted on

working, which he did, until death came. He was the son-in-law of the great Boyer, and was with him one of the surgeons for a long time, of La Charite. When Dupuytren died he succeeded him at Hotel Dieu. Let me, however, give you a few extracts from the beautiful and eloquent eulogy of M. Velpeau pronounced over his grave. "At the sight of this new grave and of the mortal remains of the honest savant, the loyal man, the great surgeon, the generous citizen which lie before you, do you not feel with me, gentlemen, from the bottom of the soul, a melange of fear, of pain and sorrow.

M. Roux, in spite of his great age, was as you know active and laborious as the youngest.

An hour before the fatal attack he acted and spoke with the same freshness of mind and body, as at forty. All of you, members of the academies, savants of *all* classes, physicians of all orders, pupils of the schools, men of the world, and this large audience *in mourning* which surrounds us, weep, yes, weep, for a great light is extinguished, and humanity looses in M. Roux one of its most devoted benefactors. The career, the surgical life of M. Roux may be cited as one of the longest, the finest that can be seen. He has shone in the first rank during almost sixty years, either as a professor, as a *savant*, in the *concours*, in the hospitals, in private practice, and in the academies.

Born at Auxerre, in 1790, he knew surgery well enough, to be admitted in the army of sambre-et-muse as an assistant surgeon.

He came to Paris, in 1797, where he soon made the acquaintance of Bichat, whose friendship he gained and with whom he became associated in his anatomical labors. In 1801 he received the first prize from the schools of health, and in 1802 he disputed an concours for a place in the hospitals with Dupuytren; Dupuytren whom he met afterwards, in his career, surgeon of hospital Beaujon in 1806. At 26 years of age, he entered La Charite, in 1810, as one of its surgeons, by the side of Boyer, of the great Boyer, whose son-in-law he became, and who recognized him as the most skillful operator of that time. In 1812 he entered the memorable *concours* again with Dupuytren. He so approached Dupuytren that shortly afterwards a vacant chair was given to him by the unanimous vote of the faculty. The ardor, the intellect manifested by Roux in those public struggles, have never been equalled by any one. The necessities of the *concours*, the

exigiences of his city practice and of his service in the hospitals left his mind sufficiently free to bring out numerous publications; at 20 years of age he aided in the editing of descriptive anatomy the renovator of French anatomy. The fifth volume of that great work is due to his pen. Later he conceived the plan of another treatise of the same kind, the first volume of which only was completed without being printed.

His duties as an operator and the lecturing which Bichat had given him did not allow him time to write. In 1809 he published a volume on various subjects, when without ceasing to be an anatomist, we see him turning his regards to surgery. We find in this volume some memoirs which mark a true progress, and which we will not forget. His work on operative surgery has not been finished. It was in 1813, that Dupuytren triumphed at Hotel Dieu; a struggle was necessary, a combat of all the ability so as not to be eclipsed; a struggle of zeal and knowledge in the hospital, a struggle in lectures, and a struggle in the eyes of the world. With such a champion and such a war, which has lasted twenty five years the laborer of the private study was not possible. But in leaving his didactic works unfinished, M. Roux has never ceased to work for the advancement of surgery. Either by original operations or important modifications, he has left his mark on many questions. We owe to him in his lectures the importance of the study of surgical anatomy. The suture of the veil of the palate, an operation which has freed humanity from a frightful deformity, is entirely due to him. Another infirmity more sad still, the ruptured perineum has disappeared from the body of incurable affections under the inventive genius of M. Roux. To him is due the credit of having rendered general in Europe those ingenious operations having for an end the remedying of the deformities of the face and of the surface of the body in general. The resection of diseased joints was to him its finest pages and its finest examples of success. The *immediate reunion* of wounds, the treatment of aneurism by the ligature of the arteries at a distance from the tumor would never have become popular in the hospitals of Paris and in ordinary practice if it had not been for the efforts and examples of M. Roux. Who, more than him, has popularized the operation for cataract by extraction? An infinite number of operations invented by him have for a long time been public property. Why has fate, jealous of an existence so rich, broken the thread, when our

regretted colleague had only need of some months to complete the publication of a great work, a work in four volumes, entirely written, and which contains the treasures of a surgical practice such as has never before existed? It is, however, with the bistoury in his hand that M. Roux had no equal. With what art, what elegance, what address, what rare fecility he used this instrument. Every move was methodic, regular, prompt and light in his movements. He preserved this wonderful dexterity until the last moment at the age when the fingers of others are numb and trembling, when the sight is weakened he practised still the operation for cataract with as much safety as in the first years of his long career. He belonged to the school produced in the royal Academy of Surgery, a school whose doctrines have prevailed over the whole of Europe, and of whom Sabatier, Dessault, Boyer have been the highest personification. With the precision, the mathematical exactitude of their descriptions, those distinguished minds, placed the qualities of the hand, the manual part of operative surgery in the first line, and left to the second the theories, the nature of diseases, the importance of medications, in fine to take surgery in all the purity of the grammatical acceptation of the word. Imbued, instructed in these precepts, which were besides conformable to his natural tendencies, M. Roux continued all his life the operator *par excellence* in the midst of the generation, who, modified by our young institutions, wish that medical notions should go before a skillful hand, and that in surgery the artist should be subordinate to the *savant*. We may also say that the Academy of Surgery, of which he has been as the ultimate efflorescence and without contradiction the most brilliant representative, looses in time the most solid column which remained in Europe. Of a scientific probity unsurpassed, kind and good, frank, expansive, and affectionate he was agreeable and easy in social life. Differing from so many others, he spoke of his reverses and his errors. Irreproachable in his intentions he never imagined that such avowals could be turned against him and serve as arms to the envious.

His abandon, his simplicity in his professional relations made him sought by all. Devoted to his pupils he exhorted them to work without ceasing. Always ready to serve them with his reputation, to protect them, he tendered above all the hand to those who entertained a certain love for surgery. He was even happy, as well as proud, to make them operate under his own eyes, to be a witness of what he called their

first use of arms. His pupils have been numerous and have always been attached to him. Proud of their success as if it was his own, he gave them a large place in his affections; his kindnesses and good deeds were without reserve; he felt painfully the failure of regard or the evidence of ingratitude with which he was paid by some of them; and how could he foresee ingratitude, he who had served his friends, those who had seconded or aided him with so much self denial and courage, him who on all occasions and everywhere was always ready to defend, to honor, and to admire the great name of Bichat and that of Boyer, because that Bichat and Boyer had encouraged him at the beginning of his studies he who never spoke but with praise and respect of his ancient masters; he who has never betrayed friendship, him, in fine, whose lovely soul would have sacrificed all to the happiness of pleasing. If this character which followed him everywhere, in the bosom of his family as in public life has been for him the sources of some clouds, of some bitterness which had on the other hand warm partizans, precious friendships, the sympathy of all the medical *personal* and universal esteem. From his travels in Italy, Germany and England M. Roux was on intimate terms with all the distinguished men of these countries. The desire of seeing him operate; his natural aminity, the great affability and his distinguished manners as of his entire person attracted all the foreign surgeons around him whom curiosity or desire for improvement brought each day to Paris. He has thus remained incontestably for twenty years the most brilliant surgical celebrity of the century in the eyes of the operators of the whole world. If it was in the nature of man to find out of himself perfect happiness, M. Roux would have had nothing to regret. Nothing was wanting to him here below, reputation without stain, family comfort, honors, were all his; no one of the things which men seek had been refused him. The title of member of the Institute satisfied all his wishes. To preside in the Academy of Sciences was his last desire and that noble ambition would have been gratified, if Providence had not broken the chain of his days. His son, although in another profession makes us feel the fine qualities of his father, and the worthy wife whom he chose towards the latter part of his life, has known how to charm his old days with a serenity, which fails too often in the last years of existence. His distinction, his loyalty, will be, besides, incessantly recalled to us in the person of a learned man M. Dunyan as distin-

guished as modest who was his son-in-law and who entertained for him the veneration of a son.

Still one word, gentlemen, not in the name of the Institute, but in our own name; it is as the disciple and the friend of M. Roux, that I wish to utter the sentiment of final seperation. It is near thirty years since I was attracted to him by a secret instinct, by a natural sympathy, I received a welcome from him which I still remember with pleasure and kindness. The support, which he has given me in other circumstances, has left at the bottom of my heart a sentiment of love and gratitude which have only increased as I have known him more. Living with him on the most intimate terms. I have been able, better than any one else to appreciate all the greatness, worth and delicacy of his soul. I fail in expressions to utter the feelings of pain which oppresses me in the midst of this sorrowful assembly, by the side of the mortal remains of one of the men I have loved the most.

Venerated master, faithful friend, thou has nothing to fear for celestial life, thou hast well served thy fellow men, thy career has been nobly, largely filled! thy memory will not perish; thy name ever honored will occupy a fine, a great page in the history of learned and useful men.

From thy dwelling place with the elect, may God permit to thy great spirit to cast at times an indulgent regard upon us; thou knowest at least that among thy old pupils, there is *one* who will cherish thy souvenir and will be grateful to thee until his last hour, who in addressing thee an eternal adieu with draws from thy grave with a heart full of tears and sincere regrets."

Velpean shed tears plentifully when he delivered the last few sentences. His manner was that of one agitated with the sincere feelings of regret for a dear venerated friend and master. M. Malgaigne also delivered a beautiful eulogy on behalf of the Faculty of Medicine. There is not room, however, for it. Margolin closed on behalf of the society of surgery.

His funeral was conducted with more pomp and ceremony than that of orfila. The scene in the old church of St. Germain des Pres was grand and yet strange to me. The coffin was mounted on a catafalque in the middle of the church at a considerable distance above the audience. Over it was thrown a cloth of black velvet with the letter R worked in silver on each side. His professional cap and robe as also the decorations of the Legion of Honor which he had worn

were laid on this. Near the altar sat the Faculty and agreges in their red caps and gowns, with the members of the Institute of France, the Academy of medicine, and a large number of military surgeons all in official costume. Around the catafalque stood a large body of the National Guard. The church was filled with all classes. I shall long remember the scene.

Who is to succeed Roux as the first surgeon of Hotel Dieu you may ask. Rumor says that Jobert de Lamballe now of Hotel Dieu will be appointed. He is first surgeon of the Emperor whom you may know appoints all the professors having abolished the concours. The manner of proceeding is as follows: The Academy of medicine name three candidates, the Faculty three and the Institute of France three. From this list the Emperor appoints the one recommend, or in other words the one who heads the list. But in the present case it is said that Jobert will not be named as the first choice either by Faculty or the Academy of Medicine. He is not fitted for the place in my opinion. A distinguished gentleman observed to me the other day that Jobert knows only two things, viz. to operate for visico-vaginal fistula, and to use the fer rouge. He is very unpopular with the profession. M. Melaton Prof. at the Clinique de la Faculti should have the place. He is certainly the best pathologist, the most instructive lecturer and the most conscientious surgeon here. But more of all this in my next. But I must stop here, I have many matters yet to tell you, but this letter is now too long, so I will postpone them all till my next.

Respectfully,
JOHN A. MURPHY, M. D.

Singular case of Asthma.

T. H., aged 60 years, farmer, of unusually good constitution, active habits, enduring much and constant labor has been subject to *annual* attacks of Asthma. These attacks have occurred with great regularity for 32 years and invariably make their appearance between the 27th day of August and the 2nd day of September. The period of duration being from 10 to 15 days. There are no peculiar symptoms distinguishing these paroxysms from ordinary asthma. The patient is unable to lie down—sleeps in his chair with his

head resting on the table. No derangement of the digestvie organs, bowels regular, &c.

Has submitted to much and varied modes of medication without benefit—tonics, alteratives, emetics, blood-letting, counter irritants, &c., before and during the attacks. Counter irritants have been applied to the thorax and spine. Nostrums have been but little used and quackery of all kinds has met with no encouragement from *this* patient.

With the exception of these attacks his general health has been uninterrupted during 32 years.

He desires you to give publicity to his case through the Lancet and we solicit for him the attention of the profession. What plan of treatment shall be adopted to avert the approaching Paroxysm?

Yours W. V. Cowan, Haville, O.

Reviews and Notices.

Types of Mankind: or Ethnological Researches, Based upon the Ancient Monuments, Paintings, Sculptures, and Crania of Races, and upon their Natural, Geographical, Philological and Biblical History: Illustrated by Selections from the Inedited Papers of Samuel George Morton, M. D., (Late President of the Academy of Natural Sciences, at Philadelphia,) *and additional Contributions, from* Prof. L. Agassis, LL. D.; W. Usher, M. D.: and, Prof. H. S. Patterson, M. D.: By J. C. Nott, M. D., Mobile, Alabama, and George R. Gliddon, formerly U. S. Consul, at Cairo.

> "Words are things; and a small drop of ink,
> Falling, like dew upon a thought, produces
> That which makes thousands, perhaps millions think."—Byron.

Philadelphia: Lippencott, Gambo & Co., 1854.

The world is occasionally startled by the appearance of a "comet of tremendous size" that threatens to knock our little unpretending sphere from its orbit, and jostle all our "Yankee Notions" into chaos and "confusion dire," and yet though the guidance of the infinite and unering wisdom of the "Creator of all things," not only our own little planet, but the whole system of planets are pursuing their undevious way through the "blue etherial space;" and we, the inhabitants of the earth, are still building rail roads, tellegraphs and steam engines, while the ominous

comets with their misty tails, have all disappeared harmless from our view.

The world is occasionally startled by the appearance of an author, who threatens to subvert the revealed truths of the Holy Bible, and to undermine the foundation of all true religion, and throw us back into the confusion of chance, without an anchorage for our hope of immortality. But where, now, are the writings of Voltaire, Volney, and Paine? The Bible is not annihilated, neither is it discarded as a fiction, but is still the highway upon which the christian travels—his guide in health and prosperity, and his consolation in sorrow and affliction, and his solace in the hour of death.

The object of the "Types of Mankind," is to prove that the earth was not peopled from a single pair, as narrated in the Book of Genesis, but that the Creator's "*fiat*" called into being several primitive pairs, corresponding with the number and types of the different races that are now found upon the earth. The authors have climbed the pyramids, searched dilligently among the ruins of ancient art, ; descended into the musty catacombs of Egypt and other repositories of the ancient dead—have torn the linen envelopes from innumerable mummies ; made drawings of sculptures, paintings and hyerogliphics, found in ruins of buried cities ; and have traced the Egyptian, Chinese, Assyrian, Hebrew, and Hindoo cronology, to find facts whereon to base their ethnological theory.

From such varied sources, they have been able to collect together a large amount of highly interesting material, which will amply pay the reader for a careful perusal of their work ; but we are by no means convinced, that any or all of the facts presented, prove conclusively their theory, or even warrant a doubt of the truthfulness of the history of the creation as it is written by Moses. For sale by Truman & Spofford.

Clinical Lectures on Pulmonary Consumption. By Theophilus Thompson, M. D., F. R. S., Fellow of the Royal College of Physicians, London; Physician to the Hospital for Consumption and diseases of the Chest; Author of Annals of Influenza, prepared for the Sydenham society, etc. Philadelphia: Lindsay & Blackiston, 1854.

Since we acknowledge ourselves, as a profession, incapable of curing consumption the enquiry may be made with some seeming

justice, why is there so much written on the subject, when there is no probability that all the volumes that can be written would lead to the cure of a single patient, having tuberculated lungs? The answer will readily suggest itself to the mind of the experienced practitioner. The diseases of the chest, form the most important group that we have to study, and it is essential that a correct diagnosis is made in every case that comes under our care, that tubercular and the purely inflammatory affection are not confounded in practice; for in the first, a stimulating, nutritious, phlogistic treatment, seems to prolong life; while in the second, the anti-phlogistic must be promptly resorted to, if we expect to escape fatal lesions of the lungs. Hence, we can not study too much the symptoms of consumption; and every work that gives us the least new light on its phenomena, commends itself strongly to our attention.

Dr. Thompson has long made a specialty in his studies, of the diseases of the chest, and his position as clinical teacher in the hospital for consumption, has given him a large amount of experience, which he has given us in a plain, easy style, in the form of familiar lectures, as they were delivered to his pupils in the institution. We have not space to do the book justice, by giving extracts, but as a fair sample we will present the following remarks on "night perspiration."

In proceeding, gentlemen, to conclude this course for the present session, it occurs to me that among the more distressing incidental symptoms of consumption, are some which have been only cursorily noticed, and on which it might have been profitable to dwell. There is, only time to-day, to revert to one or two of these symptoms. One of these is night perspirations. You have had numerous opportunities of observing how often, without any treatment specially directed to control the perspirations, they have ceased under the employment of means culculated to improve the general constitutional condition. Such a result, however, is by no means constant. You have seen that various medicines have been admtnistered, with a view to diminish this cause of distress. Sometimes it has been relieved by small doses of opium, as contained in compound kino powder, or Dover's powder, sometimes by mild aperients; but the remedies usually thought appropriate are acids, such as the sulphuric and the gallic. The diluted acetic acid, given in drachm doses with cascarilla or any other bitter infusion, three times a day, has appeared to me to be the most effectual of this class of remedies; and the

object is promoted by administering in addition, every night at bed-time, five grains of gallic acid, and an eighth of a grain of hydrochlorate of morphia, made into a pill with mucilage. Sponging the body occasionally with a tannic acid lotion is a useful auxiliary in the treatment. Of late I have given, with most satisfactory results, four grains of oxide of zinc, with four of extract of henbane. No remedy which I have as yet employed, has exercised so uniformly favorable an effect in moderating the night perspirations. I have occasionally substituted the sulphate of zinc in doses of two grains, with advantage; but, generally speaking, the sulphate proves less efficient. The preparations of zinc occasionally fail to accomplish the object, and in some instances, after succeeding for a time, lose their power; but this is unfortunately still more common with other medicines used for the purpose; and I am particurly anxious to direct your attention to the valuable properties of zinc, because the preparations of this metal have been disparaged by some writers of authority. Ratier,* observes that zinc is no longer much esteemed in therapeutics; and the late Dr. Pereira asserted that the sulphate, although checking pulmonary and urethral catarrh, had no power of checking cutaneous exhalation. As respects the oxide, I am not aware that the existence of such a property has been even surmised by the profession.

An instance is recorded by Dr. Busse of Berlin,† of a gentleman who, after taking a scruple of the oxide daily for some months without success for the treatment of epilepsy, became cold and shrivelled and his skin like parchment, but no practical deduction appears to have been made from this observation; and I am happy to refer to the right source a practical suggestion for which the public are much indebted. The remedy was first used at this hospital at the suggestion of Dr. Robert Dickson, whose acuteness of observation led him to detect this property of the oxide in some patients, to whom he had administered it as a general tonic. I hope Dr. Dickson will pursue his investigations, and be able to discover the cause of the peculiarity in this medicine, which seems to render its administrytion singularly efficient in checking the perspirations connected with the hectic phthisis. For sale by W. H. Derby.

Woman: Her Diseases and Remedies. A Series of Letters to his Class. By Charles D. Meigs. M. D., Professor of Midwifery and Diseases of Women and Children, in the Jefferson Medical College at Philadelphia; Member of the American Medical Association; of the American Philosophical Society, and of

* Dictionaire de Medecine et de Chirurgie, 1836.

† Wochenschrift fu r die Gesammte Heilkunde, 1837, No. 19.

the Council; Vice President of the College of Physicians of Philadelphia; Late one of the Physicians to the Lying-in department of the Pennsylvania Hospital, etc., etc. Third edition revised and enlarged. *Quae Prosunt Omnibus.* Philadelphia: Blanchard & Lea, 1854.

It would be superfluous to attempt to say much in commendation of the works of Dr. Meigs; and especially of his treatise on "Woman: her Diseases and Remedies," for it is a work that has been generally read by the profession, and has universally received, as it deserves, a flattering approval. The present is a much enlarged and improved edition, containing the matured views of the author down to the present time.

For sale by H. W. Derby.

A Universal Formulary: Containing the Methods of Preparing and Administering Officinal and other Medicines. The whole adapted to Physicians and Pharmaceutists. By R. Egleesfield Griffith, M.D.. A new edition. *Carefully Revised and much Extended.* By Robert P. Thomas, M. D., with illustrations. *Selecta sunt quae medicum nobilitant.*—Linnaeus. Philadelphia: Blanchard & Lea, 1854.

This is a work of 651 pages embracing all on the subject of preparing and administering medicines that can be desired by the physician and pharmaceutist. It also contains many valuable recipes for compounding various articles used in perfumery, culinary and other domestic preparations, hence the work is not restricted in its use to the profession, but will be found of great value in every housekeeper's library.

For sale by H. W. Derby.

Progress of Medicine.

Indian Midwifery—Notes on, by Dr. Wise, H. E. I. C. S.—Dr. Simpson read the following communication from Dr. Wise, author of the learned "*Commentary of the Hindoo System of Medicine.*"

REMARKS ON THE TREATMENT OF WOMEN DURING PREGNANCY AND LABOR BY THE ASIATICS.

The vast countries which the Mohammedans conquered extended from Spain to China, embracing a portion of Eu-

rope and a large part of Africa and Asia; in all of which countries they have left traces of their manners and customs. Even among the Hindoo, so prejudiced in favor of their own habits, considerable changes have taken place, from the mingling of these two great races. In both, the treatment of females during parturition resembles so much each other, that the following remarks may be applied to either; although some differences in unimportant local customs may be found in parts of these extensive countries.

The Koran has always been considered by the Mohammedans as the standard to regulate their religious, civil and scientific pursuits. One of its peculiarities is its robbing the female of her rights, and placing her in a degraded position in society, and from their ignorance, the minds of their offspring remain uncultivated, and are filled with prejudice and superstition. This want of confidence in females induces the Mohammedans to employ ignorant and prejudiced menials during the period of parturition, by which both the mother and offspring suffer, So frequently are their lives sacrificed, and so convinced are they of the superior method of proceeding of European practitioner, that they often require their assistance in the hour of difficulty and danger. On this account I had frequent opportunities of witnessing their method of treatment and the tenets which they inculcated both among the Mohammedans and Hindoos, of which the following are a few particulars:—

From the time that the female becomes pregnant, various religious ceremonies and superstitious observances are used to promote the welfare of the fœtus, and to prevent the influence of the evil eye. This is so much dreaded, that during pregnancy the woman is rarely allowed to go abroad. At the same time, her peace of mind, happiness and comfort, must be promoted, and gentle exercise enjoined with attention to diet, which is varied with the period of utero-gestation. On the fourth month curdled milk should be administered; on the fifth milk, on the sixth ghee (clarified butter), on the seventh ghee and milk, so as to promote the formation and development of the fœtus; while on the eighth month, to ensure an easy delivery, enemas with milk, oil, and ghee are administered, and the body is smeared with oil. This is followed by other arrangements for the delivery, which will be afterward described.

During the period of utero-gestation, the female is to avoid anger, fear and grief, venery, fatigue and watchings, raising

heavy weights, coughing and violent exercise. Before the fourth month, bleeding, cupping, and purgation, and emetic medicines, are only to be used in cases in which it is absolutely necessary, when bleeding in small quantity, and laxatives may be employed. In all such cases external applications should be preferred. For a like reason, indigestible food, strong and pungent liquors, and disagreeable smells are to be avoided. Precepts which prove that considerable care had been taken by Asiatics in observing, and discrimination, in inculcating the line of conduct, which ought to be pursued in such cases.

For lessening the distressing symptoms which so often accompany pregnancy, they recommend—for nausea, gentle exercise, keeping in the mouth mint leaves, and the seed of the pomegranate. For an unnatural craving, gentle aperients, with mild acids, such as a syrup made of unripe grapes. A want of appetite is treated by poultices over the pit of the stomach; and heartburn by sipping warm water, with gentle exercise, carminatives, with a diminution of food. Hemorrhage during pregnancy is treated by certain astringent leaves which are bruised, mixed with vinegar, and applied externally over the abdomen.

Before considering the means employed by the higher classes of natives in India, I shall add a few remarks on labor as it occurs among the rude tribes of Hindostan. The females of such races are accustomed to so much exercise and labor that they are of a healthy habit of body, possess fine figures, live on simple food, and nature is allowed to follow her own course during parturition, which is more rapid, and attended with less suffering and danger than among more civilized nations.

This is promoted by the relaxed habit of body of Asiatic females, the early age at which they marry, their temperate habits and healthy systems, which render childbirth peculiarly quick and safe. The poorer classes often merely go aside when labor commences, a few pains complete it, and the only assistance which they require is a piece of a broken pot to divide the umbilical cord after is had been tied. The secundines being removed, the infant is wrapped in a piece of rag, the mother cleans the mud floor of the hut, walks down to the neighboring stream, and after she has washed and bathed, returns to her domestic occupation as if nothing particular had occurred.

I knew an instance of a slave girl being delivered without

awaking a female sleeping with her. At Agra, a class of women are in the habit of walking several miles to graze their cattle, and when thus at a distance they are sometimes delivered in this easy manner. They wrap their offspring in a piece of cloth, bathe and return in the evening several miles on foot, driving their cattle before them. Next day they continue their usual occupation. They suffer much in after years from such premature exertion; as also from their early marriages, as they often become mothers before they reach their twelfth year. It is, however, to be recollected that in Asia, especially in a hot and moist country like Bengal, the female arrives at puberty between eight and nine years, and the male at fifteen or sixteen, which is three or four years earlier than in Europe.

Among such a primitive race deformities will sometimes occur, and unfavorable presentations will retard delivery, and render it dangerous; but such events are much more rare than among refined, and consequently, more civilized nations. When native practitioners are consulted on these occasions, they chiefly rely on prayers (*montres*) and charms; such as expanding dried and shriveled-up sea-weed, by putting it in water, or pulling up certain plants by the roots, which operation is famed to assist delivery.

In more populous parts of the country, and in large cities where a more artificial manner of living is pursued, and among the higher classes of Hindoos and Mohammedans, the form of body, and strength of constitution is enfeebled by ease and luxury, and the want of healthy exercise renders parturition more difficult and dangerous. In those periods of suffering and anxiety, the assistance of their elderly and experienced friends might be supposed to be sufficient, were they not prevented by the pernicious influence of caste. By Asiatics, parturition is a period of impurity, and this seems to be strongly impressed on the Mohammedans by the prejudices of the Hindoos. The important and most difficult art of midwifery among the Asiatics is considered degrading; and low caste, feeble and ignorant women are alone employed, by whom the processes of nature are interrupted, and the most pernicious method of treatment is followed to the great danger of the mother and child.

Women have been employed to assist in parturition from the earliest ages. These females appear in some countries to have been of some rank and weight in society, as we find in Egypt they resisted the cruel order of Pharaoh, who com-

manded the midwives to kill all the male children of the Hebrew women. Among the Greeks and Romans women alone were employed. Planaretto, the mother of Socrates, was a midwife; and Plato, Hippocrates, Galen, and Aeteus mention midwives. They were likewise employed to negociate marriages, a duty they still perform in Bengal. The same system was pursued in Europe after the fall of the Roman empire till the seventh century, when medical men were employed as accoucheurs.

From a very early period practitioners were consulted in difficult cases of labor, as is mentioned in the second labor of Rachel, the wife of Jacob; and again, when Tamar was delivered of twins, and they are likewise mentioned in Exodus. The same practice is still pursued in Hindostan when females are employed in ordinary cases, and practitioners are called to assist in cases of difficulty and danger.

The midwives in Hindostan are named *dyhs*, and are of the lowest castes (*Haree* and *Chunar*); while the Mohammedan midwives are usually the wives of religious mendicants, named *tizoans*. All these midwives are extremely ignorant and superstitious; so that even considerable experience is usually of little use in improving their opinions and method of proceeding.

In the ninth lunar month the pregnant female is placed under the care of these *dyhs;* when the Hindoo female is removed to the temporary shed, which is erected without the dwelling-house, or to a low, damp, unwholesome room, where she is to be confined, as her person, during the period of uncleanness, would defile the dwelling-house. At this period of anxiety and suffering, she is separated from her friends, and placed under the charge of this ignorant and degraded midwife, with whom, on any other occasion, she would not associate.

A month before pregnancy is expected, a teaspoonful of almond oil is taken daily, and the warm hip-bath is frequently used, and warm water is thrown over the patient's head, while oil is applied to the abdomen, loins, and the external parts of generation to relax the parts, and thus to accelerate labor. With the same intention, in many parts of India, after the seventh month the woman's clothes are bound tightly above the fœtus, from a fancied advantage in keeping it down in the abdomen, which is further promoted by pressing it frequently downward.

To promote labor the patient is made to walk about, she is

directed to inhale the smoke of burnt horns and the eyes of salt-water fish; holding the nose and mouth in the act of sneezing, is likewise considered of use in promoting abortion. This is a crime of frequent occurrence in Hindostan, and the midwives are frequently aware that they can produce it by separating the membranes round the mouth of the uterus, by which means the person often avoids the shame of being proved to have indulged in illicit intercourse.

The Hindoo female thus leaves her comfortable and warm dwelling for a damp and cold hut, which is rendered still more dangerous by the hot drinks she is required to take, and the large fires continually burning to keep away evil spirits; while the matted hut allows the free ingress of the night air, which blows upon the heated body of the female extended on the cold and damp earth, often without the necessary clothing, and at a time when she is so subject to disease. The ignorant Hindoos suppose that devils take advantage of this period of weakness to enter into the body of the mother and child; to prevent which large fires are kept burning before the door of the hut, in which the parings of leather are burnt, and persons must walk over and shake their clothes to prevent the passage of any devils. In other houses, a plate of rice and cowries are placed on each side of the door to propitiate the same personages.

The patient is delivered while resting on her back, in the lap of a female sitting on the ground, while her knees are bent and separated by two other females, one sitting on each side. To facilitate labor the parts are lubricated with oil, and the *dyhe*, resting on her hams before the patient, instead of supporting the perineum, urges the female to assist nature in expelling the child; while she introduces the fingers of her two jointed hands in a conical figure, and by separating the palms, stretches the external parts, and thus, they suppose, facilitates labor. This, however, is not the case. The mechanical violence irritates and swells the parts, diminishes the relaxing influence of the mucous secretion, and thus retards labor and increases the suffering and danger of the patient's life. This is likewise produced by rupturing the membranes at an early stage of the delivery, by which the natural soft wedge which facilitates so much labor, is removed, and a natural becomes a case of lingering labor, which, with the regimen and exposure, endangers the lives of the mother and infant.

When the infant has been delivered, the cord is tied near

the abdomen of the infant with a piece of lint, catgut, or silk thread. The poorer classes divide the cord with a piece of broken earthen vessel, while others use a sharp piece of bamboo for this purpose. Among the Hindoos the *dyhs* perform this simple operation; but among the Mohammedans a violent controversy has long existed as to the person who should divide the cord. The orthodox declare that the low caste Chunar midwife should do it, as she is considered unclean. In many Mohammedan families experienced matrons are employed for delivering the female, and the low caste *dyhe* is only sent for to divide the naval string, and to remove the secundines, for which she receives a few pence, up to a couple of shillings, according to the circumstances of the family. When in good circumstances, the midwife is often retained with the female as a sick-nurse, and attends to the regimen of the mother and infant during one lunar month, or in some cases forty days, during which she remains in this stifling atmosphere, and is supposed to be unclean. During this time a good deal of the nurse's time is passed in warming the hand and pressing the palm upon the bodies of the mother and child, which, it is said, strengthens and warms. It is likewise supposed to hasten the completion of the bony union, gives compactness to the parts, and prevents boils and other complaints. The infant is soothed by the warm application and remains asleep. This application is continued for many days, for half an hour evening and morning. In other respects, they too often neglect, or follow the dictates of superstition, exposing them to the most pernicious influence of cold. For this period of attendance the nurse usually gets eight shillings, or the wages of a common workman. A new sect of Mohammedans (Ferazees) declare that it is improper to employ a low caste woman to divide the cord, and as it does not render the person unclean, it should be performed by the father, or one of the relations of the child. The pertinacity with which this question is discussed shows the superstitious ignorance of the people, while the modification proposed proves that more rational views are beginning to be held on the subject.

For unnatural presentations very considerable variation exists in their method of proceeding, in different parts of Asia. Face, head and knee presentations are left to nature, and medicines are only given to promote delivery. The more intelligent Hindoo authors recommend, in the two last varieties, that the presenting parts be pushed up, and delivery

accomplished by the feet. Nothing is done in arm presentations, but dragging it downward, in the vain hope of completing delivery. In the Hindoo writings it has been recommended to push up the arm, and bring down the head; and when this is not sufficient to save *the mother*, a hook is used to remove the dead fœtus, as otherwise the mother will soon die if undelivered. The other means employed are emolients externally, and stimulents internally.

In rare cases an abscess has formed in the parietes of the abdomen, and the dead fœetus is thus expelled. Such cases afforded a hint to practitioners to perform the Cesarean operation when the mother had been killed, near the termination of pregnancy, and the fœtus was alive. In the East this operation has been employed from a very early age; and so apparent and necessary is it in certain cases, that I have known a case in Bengal in which two ignorant persons performed the Cesarean section with a razor, in a case of great deformity, and thus saved the life of the mother and child. In another case delivery could not be accomplished, and a native practitioner of Bengal told the husband that unless a dangerous operation was performed, both the mother and child must die. It was referred to the mother, who replied, "Do not mind my life, but save that of my child." The operation was performed, and both recovered.

When the infant has been removed the *dyhe* generally introduces her hand into the uterus, seizes the placenta round its circumference, which she presses toward its center, and it is thus detached and removed. When there is any diffiulty in removing the secondines, the patient is supported so as to rest on her arms and knees, when it is removed by the *dyhe*. A quantity of oil is poured into the external parts, and she is placed on her left side, when the delivery is considered completed.

In consequence of the barbarous method of interfering with the natural labor, the infant is often born very weak, or in a state of asphyxia, when they chew a peppercorn, and put it in the mouth of the infant. In other cases beside this, they remove the placenta, strip the cord toward the body of the infant, and place the placenta in a new earthen vessel with water, which is placed on the fire until the water boils. The cord is then divided in the usual manner, and the infant placed in cotton. This peculiar custom has the advantage of retaining the infant near the fire, which will have a favorable tendency.

During labor, it is considered most dangerous to allow the female to drink water, or any cooling liquid. Should she be thirsty, a little warm milk may be given. After delivery, she is kept on her left side by the fire with her head toward it. This artificial and distressing heat is continued night and day during her period of uncleanness, as it is considered that the patient should be kept warm both outside and inside. On this account her diet consists of boiled rice, with highly spiced fish broth, and she is obliged to sleep, but to speak as little as possible during the first seven days after delivery. With the same intention she is rubbed over with warm oil and turmerick, and washed with warm water, to remove the pent-up blood, which is supposed to produce fever, etc. Different hot infusions are kept in readiness in certain druggists' shops, which are considered very efficacious, for women after delivery. They are usually composed of a great variety of spices, such as pepper, cloves, cardamum seeds, ginger, etc. These are given occasionally during the first two days; in other cases warm water, ghee, and in less scrupulous families, wine or brandy are given after delivery, as by this means diseases are supposed to be prevented and cured. One of the most famous of these receipts now before me consists of twenty-five heating medicines, which are directed to be infused in water, and given occasionally warm.

By such a heating regimen the female is subject to floodings, tetanus, convulsions, puerperal fever and rheumatism, which frequently occurs from their exposure during or soon after parturition, when the female is under the care of the *dyhe*, who is altogether unfit for the charge either of the mother or child. When assailed with sickness this ignorant nurse attributes it to the patient not having been sufficiently heated, and tries to increase this intolerable evil.

In all eastern countries, the female, after the expiration of the period of uncleanness, is obliged to observe certain customs respecting their purification, which are of a very old date; so that the Jews (see Leviticus xii. 4), like the Hindoos, were considered unclean for the same period, and were, like them, purified by washing and expiatory offerings, when they were restored to their family and caste.

Dr. Wise's paper led to various remarks on the customs of other tribes in regard to the treatment of women during pregnancy and parturition.

Editorial.

ACIDS IN THE TREATMENT OF CHOLERA.

Dr. Gracy Scott, of Pataskala, O., gives the following interesting statement of his experience in the use of acids in the treatment of cholera and diarrhœal affections:

PATASCALA, O., July 4, 1854.

Editors Western Lancet:

I hear of cholera in every direction, and think it not amiss to give my experience for the last five years in cholera and cholera morbus.

About five years since I was attacked with cholera morbus. I was then living in the country. I was soon very much reduced, and my wife proposed sending for another physician, but my feelings were that the usual drugs would not be retained in the stomach, and the thoughts of medicine were repulsive.

Finally I requested of my wife to prepare me some vinegar and water a little sweetened, and after delaying and remonstrating for some time, she complied. At first I only wet my lips, then the whole mouth, and at last the gratefulness of the remedy overcame my prejudices so far that I swallowed small quantities; and from the moment that the first of the remedy entered my mouth I got better, and finally recovered speedily without medicine.

Yet I feared the delusion, and put into practice cautiously for several of the first cases, the new remedy. Finally in August of 1852, I was called to see a case of cholera. The discharges were purely of the rice-water character. The patient was cramping very much in the abdomen and extremities; he was pulseless at the wrist though he could speak. Good vinegar could not be had, but I dissolved tartaric acid in water so as to be quite sour. I did not measure. I commenced feeding with a teaspoon, say a teaspoonful every minute. He vomited but once, and purged but once. As soon as the irritability of the stomach was overcome I gave cal. 2 grs., s. morphine ½ gr.; then every two hours one gr.

cal. and ½ s. morphine, until the system reacted, which commenced in about eight hours after first seeing him. The first stool was bilious and of some consistence; he recovered rapidly.

In diarrœal affections I have used only the acetic and tartaric acids, though probably other acids are equally good, and yet I give a decided preference to good cider vinegar, diluted with water and sweetened with loaf sugar. My rule is:

Acid Acetic ℥i.
Cold Water ℥ii.
Sac. Alba ℥iii.

or so as to be palatable, and give a teaspoonful every minute, or oftener if the case is urgent, and depend upon the usual remedies for restoring the secretions.

ERYSIPELAS TRANSMITTED FROM PARENT TO OFFSPRING.

We have been permitted to extract the following statement, contained in a private letter from a physician residing in an adjoining state. As the letter was altogether private, we do not give the name of the writer. The case is one of interest and clearly shows the transmissibility of erysipelas, if not the establishment of a *diathesis* of that character:

Eight years ago this month I contracted erysipelas by inoculation in a fresh sore on my finger, from a patient who had it in a very malignant form. I was down about sixteen weeks. It suppurated in the axilla of the left arm and run immense quantities. I have never got over it, nor ever will, and dating back to then is the commencement of a kidney difficulty which in the last year has made rapid progress and appears to now be diabetes.

At the time I had that first spell my wife was *enciente*, and through loss of rest—it being impossible to get help, as every one was afraid—and mental anxiety, she was brought to bed a month too soon. She immediately had a severe chill and was taken with all the symptoms of severe puerperal peritonites, but evidently of erysipelatous origin and character; was a long time at death's door, and barely escaped with her life. Erysipelas appeared on the child when four days old; in two days run *all* over it, and it died. Since then, including it, we buried five only a few days old, and all with erysipelas, and at each confinement my wife suffered a severe attack of erysipelatous peritonites. A

kidney difficulty similar to mine was at the same time preying on her.

In this pregnancy she suffered from the first extreme irritability of the stomach, which, instead of subsiding at the period of quickening, grew worse, so that she was for days that she did not retain a meal's victuals, and no day that she did not vomit more or less, so that she was at the time of her confinement—which as usual took place a month too soon—literally a skeleton. Yet she bore her labor pretty well, and for twelve hours seemed to be doing well, but then the erysipelatous peritonites took place, and this time she succumbed. Erysipelas broke out on the child at nine days old, it stood it four days, and went the way of the rest.

OHIO MEDICAL AND SURGICAL JOURNAL.

By an almost unpardonable oversight, we have neglected to notice the assumption of the editorial direction of the above-named journal, by our friend, Dr. John Dawson. We have for many years had the pleasure of an acquaintance with Dr. Dawson, and therefore speak from personal knowledge when we say that he is every way adapted to his new position. It would be invidious to say that the journal has improved under the present management; but those who have read its pages will bear witness that it has not deteriorated; and this is high praise, for an inexperienced editor who can keep up to the standard of Butterfield, Smith and Howard, requires no further eulogium.

We heartily wish Dr. Dawson success in his new position, and if his patrons do *their* duty, the issue will not be doubtful.

ANATOMICAL CABINET, BOOKS, AND SURGICAL INSTRUMENTS FOR SALE.

Dr. Wm Buckner, of this city, having declined the practice of his profession in consequence of continued ill health, offers for sale his extensive cabinet of healthy and morbid anatomy, books and surgical instruments. The collection in all of the departments named is extensive and valuable; and any public institution, or individual, wishing such articles will do well to examine Dr. Buckner's collection.

RESIGNATION.

Dr. L. M. Lawson has resigned the chair of the Practice of Medicine, in the Medical College of Ohio.

Miscellany.

MEDICAL COLLEGE OF OHIO.

The annual announcement, for session 1854-55, in the above institution, has been issued. The trustees thus speak of its past history and future prospects.

"The Trustees of the Medical College of Ohio, in presenting the 35th Annual Announcement of the Institution, beg to assure the Medical profession, that at no former period in the history of the Institution were its prospects more flattering.

From the commencement of the Institution in 1819-'20, to the present time, *over five thousand pupils have attended its teachings.* Of these a large number are widely dispersed over the great Valley of the Mississippi, actively engaged in the duties of their profession, and many of them prominent and distinguished Medical men of the regions where they dwell.

Encouraged by the past history of the Institution, and believing that the work in which we are engaged is a good one; that many have been trained in the Medical College of Ohio for lives of usefulness, and that the interests of Medical Science, and the cause of humanity have been promoted, the Trustees are united in their determination to render it, in the future, still more worthy the love and pride of its numerous *Alumni*, and the regard and patronage of the profession of the West.

Fully sensible of the responsibilities of their position, the Trustees have been careful in the selection of gentlemen for the several chairs eminently qualified for *teaching* their respective departments; and they confidently believe that, as *now* organized, the Medical College of Ohio must continue to occupy a proud and commanding position among the Medical Institutions of this country.

The Trustees deem it not only a privilege but a duty to thus speak of the present organization of the Faculty; not in a spirit of boasting or invidious comparison, but as an evidence of the care with which the selections have been made, and the gratifying success which has crowned their efforts to secure an able and efficient corps of teachers.

They are also gratified in being able to state, that, with but *one* exception, all the members of the Faculty are now residents of

Cincinnati, and permanently identified with the interests of the profession of the West.

JOHN P. FOOTE, *President.*

J. L. VATTIER, *Secretary.*

Circular Address to the Pharmaceutists and Druggists of the United States.

By a resolution of the American Pharmaceutical Association in August last, the Executive Committee were directed to circulate an address to Apothecaries and Druggists throughout the United States. In pursuance of this duty, the Committee first present the official announcement of the meeting by the President, viz:

AMERICAN PHARMACEUTIC ASSOCIATION.—The Annual Meeting of the American Pharmaceutical Association will be holden in the City of Cincinnati on the last Tuesday [25th] of July next, at 11 o'clock, A. M.

The object of the Association being the advancement of Pharmacy in the United States, it is desirable that a general interest in its favor should be created among the Pharmaceutists and Druggists. According to the requirement of the Constitution, the following conditions of membership are published, and an invitation is hereby extended to all who are eligible to membership, and who feel an interest in the Association, to attend the ensuing meeting.

MM. A. BREWER, President.

Extracts from the Constitution of the American Pharmaceutical Association.

SECT. II, Art. 1.—All pharmaceutists and druggists who shall have attained the age of twenty-one years, whose character, morally and professionally, is fair, and who, after duly considering the obligations of the Constitution and Code of Ethics of this Association are willing to subscribe to them, shall be eligible for membership.

SECT. II. Art. 2.—The members shall consist of delegates from regularly constituted Colleges of Pharmacy and Pharmaceutical Societies, who shall present properly authorised credentials, and of other reputable pharmaceutists feeling an interest in the objects of the Association, who may not be so delegated, the latter being required to present a certificate signed by a majority of the delegates from the places whence they come. If no such delegates are present at the Association, they may, on obtaining the certificates of any three members of the Association, be admitted, provided they be introduced by the Committee on Credentials.

SECT. II. Art. 5.—Every local Pharmaceutical Association shall be entitled to five delegates.

The objects aimed at in the establishment of the Association are so full of interest to apothecaries and druggists, that every member of our profession is interested in its success.

These objects are mainly *the improvement of the practice of Pharmacy*, and the elevation of the *professional character* and *qualifications* of its practitioners. To effect these desirable objects the Association has encouraged the measures adopted by government to prevent the importation of adulterated and inferior drugs; has advocated a spirit of self-improvement among existing apothecaries and druggists; and has urged the adoption of efficient means of pharmaceutical education for the rising generation. By raising the standing and qualifications of the present race of pharmaceutists, physicians will be much better served, the community at large benefited, and the apothecaries themselves will reap a greater pecuniary reward, inasmuch as their valuable services will command higher recompense.

The great subject of providing more efficient means of instruction by public institutions, and at home in the shop and laboratory, has claimed earnest attention, and was referred to a special committee last year, to report in July at Cincinnati. As the future progress of Pharmacy in this country will be materially affected by the systematic education of the present minors, it is of the first importance that those now in business should adopt a liberal spirit, and aim at making their pupils and assistants better apothecaries and druggists than themselves.

The Association looks towards the local organization of pharmaceutists as a powerful means of effecting the reforms it aims at producing. Without co-operation nothing can be done; with it, every desirable reform may be carried out. Among the pharmaceutical ranks there is ample occasion for the display of brotherly feeling and charity—the best educated have room to improve;—the most meagerly instructed may raise their status greatly; and it wants but the infusion of more liberality of feeling, the silencing of the demon of jealousy, and a less bitter spirit of competition in business, to produce changes as useful to the members of our profession as they will prove salutary to the best interests of the community who are served.

It is with earnest sincerity, therefore, that we urge on our pharmaceutical brethren of the United States that they should openly recognise among their friends at home, the efforts making by the Association, and, when practicable, to attend its meetings and participate in its labors. The migratory character of the annual meetings affords an opportunity to a much larger number than would be the case if they were

fixed at any centre; and in reference to the present meeting in the largest city of the Mississippi valley, the centre of a circle of human enterprize, we hope our western and south-western brethren will manifest a large share of interest, by making some sacrifices to attend its sessions.

The Corresponding Secretary, Dr. WILLIAM B. CHAPMAN, corner of Sixth and Vine streets, Cincinnati, will give information of the place of meeting.

WILLIAM PROCTER, JR.,
THOMAS B. MERRICK,
JOSEPH LAIDLEY,
} *Ex. Committee.*

Philadelphia, June 6th, 1854.

Local Treatment of Carbuncle and Furuncle.—Litharge Plaster upon kid skin to cover the inflammatory areolar for half an inch or more, is proposed.

Lugol's solution of Iodine followed by Collodion once or twice daily to produce abortion.

Ferruginous Collodion, made by combining equal parts of collodion and the ethereal tincture of perchloride of iron, is also suggested for the same purpose.

Fistula in Ano, treated by Iodine Injections. By M. Boinet.—At a meeting of the Institue of August 1st, M. Boinet read a memoir, designed to demonstrate the efficacy of injections of iodine in the radical cure of fistula in ano, whatever their form, extent or complications. Seven cases are detailed, which offer examples of almost every variety of fistula—complete, blind, or incomplete fistula, deep fistula, with loss of substance of the intestine, and fistula in tuberculous subjects. These observations tend to prove that iodine injections may be advantageously employed in all cases of fistula, but especially in those in which the method by incision is dangerous or ineffectual, such, for example, as extend deeply, or occur in phthisical patients, or depend upon some alteration of the ischium, the coccyx or sacrum.

The advantage of iodine injections over the ordinary method consists in obtaining a cure more easily, and in a shorter time, in avoiding pain and the danger of hemorrhage, and in permitting the patients to continue their usual avocations.

The following are the conclusions of the memoir:

1. Iodine injections, properly administered, can cure radically all cases of fistula, whether complete or incomplete, simple or complicated.

2. They cure them more promptly than the method by incision commonly employed, and with less danger.

3. They produce no pain and are easily practiced.

4. They permit patients to follow their occupations, and relieve them from daily painful dressings.

5. They are applicable to all cases, and especially to those in which incision or excision are dangerous or impossible.

6. They do no harm, even if they are ineffectual, and do not prevent the subsequent use of the knife. It is therefore rational to employ them before having recourse to a cutting instrument.—*Gazette des Hopitaux. New Orleans Med. and Surg. Jour.*

Anatomy Bill..—The bill legalizing dissections in New York, has become a law. It was violently opposed, through the public press, by a few eminent men, in appeals to prejudices and religious sensibilities. These appeals met with deserved rebuke, as uncalled for, especially from the Buffalo Medical Journal, and the American Medical Monthly, both of which inveigh strongly against the charge of heartlessness, materialism, infidelity and kindred slurs from the "clergy," cast upon the profession.

"We do not claim," says the *Monthly*, "that our profession (we do not include in its ranks the half-educated and cheating empiric) all the members are free from scepticism and error. But what we do assert is, that they have not had, neither do they now have occasion to fear comparison, in these respects, with any class of the community; and therefore the jibes and sneers, so freely bestowed upon us by other educated men, are as undeserved as they are unkind. When men, as cultivated, as pure, as refined, as wise as any, claim that for the study of their science and the good of the public health and morals, there is need of the study of anatomy, and point out the best way, in their opinion, for accomplishing it, it is neither in accordance with sound logic nor Christian principle for men of education and influence to point the long finger of scorn at them, and stir up the less-thinking populace by the cry of Ghouls, Vampires and Infidels."

Physicians' Black List.—Resolutions have been adopted by the Berks County (Penn.) Medical Society, directing the members of the society to furnish to their secretary a list of such of their patients as do not pay their doctor's bills. We have long been of the opinion that a similar course should be pursued by all the regularly organized medical societies in

the country. It would be far better, however, if the European system could be adopted, which is, to receive the fee at each visit—or at any rate, at the termination of the case. It is an incontrovertible fact that physicians are more imposed upon by the people than any other class of professional men. We do not know why it is so, unless from a general impression that doctors are always rich, or are getting rich, and consequently, if paid at all, are the last ones to be remembered when the time for paying bills comes.—*Boston Med. and Sur. Jour.*

Obituary.—Died of Chronic disease of the lungs, on the 6th instant, Dr. T. P. Graves, at the residence of William Randall, in Seneca county, Ohio.

Dr. Graves was a young man of unblemished character and uprightness.

Studied his profession under the care of Dr. Eli Dresbach late of Tiffin city. Graduated a few years since in the Medical College of Ohio, and soon after located himself in the village of Melmore, eight miles south of Tiffin, when he entered upon the arduous duties of his profession. Succeeding well in business, until declining health rendered him unfit for the toils and responsibilities of professional life, and being convinced that the vissisitudes of this northern climate would be fatal to him, his fancy, 'mid dreams of hope, pointed to the balms and panaceas, of the salubrious and evergreen south. Willing for a time to abandon his profession with all its pecuniary advantages and forego the pleasure and comforts enjoyed in his family, and the associations of his friends, he took his departure last fall for *Florida*, remained there during the winter; finding no benefit to his health, he returned in the spring to his home; but only to die under the comforting care and solace of a devoted wife and the ministrations of kind friends.

Dr. Graves was a devoted student, courteous and affable in his manners and of gentlemanly deportment, also skillful in his profession he was an intelligent hater and uncompromising enemy of all the pratean forms of medical quackery, always posted upon the advancement of medical science, never failing to pay his ablutions and make his sacrifices upon the altars of the healing art.

The loss of this young physician, of such promising ability is deeply mourned by the community in which he lived. A wife and two small children are left to mourn his death. May *God* protect and comfort them in their bereavement. G.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

AND

T. WOOD, M. D.,

PROFESSOR OF ANATOMY IN THE MEDICAL COLLEGE OF OHIO, AND OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY.

No. 7. CINCINNATI, AUGUST, 1854. Vol. XV.

Original Lectures, Essays and Communications.

Observations on Asiatic Cholera, as it appeared in Cincinnati, during the years of 1849 *and* 1850. By THOMAS CARROLL, M. D.

[CONCLUDED.]

No heating substances were to be applied externally, for a period ranging from six to ten hours after the collapse had been ushered in. It was then directed, that gentle heat, by means of bottles of hot water or other warm substances, should be applied, for the purpose of gradually increasing the temperature of the system, or rather of the extremities. When the weather was cool, fire was kept in the chamber at the same time that currents of fresh air were admitted from without. In warm weather, we often directed that the windows should be taken out, and the blinds closed, to prevent the admission of wet or the rays of the sun.

When we had not seen the patient before the beginning of collapse, we gave, as in the second stage, five grains of calomel and half a grain of opium every ten minutes, until four doses had been taken. We then gave three grains of calomel and the twentieth of a grain of opium, at the same periods,

until the vomiting and purging had ceased, or until sixty more grains of calomel had been taken. Each dose was washed down with a tea-spoonful of brandy and a little ice water. If the vomiting or purging continued, we directed two grains of calomel with the sixtieth of a grain of opium at the same intervals, until thirty doses were given. If it was now found that the evacuations were unchanged, and there was yet no discharge of urine, and no returning heat, we gave two grains of calomel every ten or fifteen minutes for three hours. If now the purging continued, with light colored discharges, and no flow of urine or return of natural warmth, we gave half a grain of calomel every twenty minutes, until either death or reaction occurred.

In the meantime, brandy and water were continued, as above mentioned, although the quantity was, in general, not so great. It was our object to give about an ounce of brandy every hour. Where the patient had been in the habit of using spirits, the quantity given was graduated to suit those habits. In this way, twelve ounces were taken every twelve hours; and this quantity had often to be continued twenty-four, thirty-six, or forty-eight hours. Frequently, however, after the first twelve hours, the quantity was lessened, and soon as the warmth was generally diffused, it was withdrawn. The reader has observed, that no stimulant but brandy has been spoken of, and, indeed, very little else was given. Sometimes we ordered rum or gin. The latter, it seemed, might, owing to its diuretic effect, answer the purpose better than any other stimulant. But it is little used here, and is, we believe, generally of bad quality; so that we depended chiefly upon the best brandy that could be procured, which was often bad enough.

In the treatment of children at the breast, our course was, to give half a grain of calomel every ten minutes, until the occurrence of death or reaction. With each dose of calomel we generally combined the hundreth part of a grain of opium. In a few cases, we gave more than this quantity of the latter, though we now doubt the propriety of doing so. Small sinapisms were kept to the epigastrium and extremities, until those parts became red. From ten to twenty drops of brandy, in a little ice water, were given with each dose of the calomel. In older children, the doses were, of course, increased in proportion to the age.

We come now to speak of results, as illustrating the effect of our plan of treatment. During 1849, we had in our own

practice 29 cases of collapse. We saw other cases in consultation, and some so far advanced when we saw them, that nothing was attempted, or at least expected. Of these 29 cases, 10 died without reaction, and 19 were carried successfully through collapse, into the fourth or consecutive stage; of which number twelve ultimately recovered, and seven died during the consecutive fever. We proceed to describe a few of these cases in detail, beginning with those that proved fatal before reaction occurred.

CASES: Mr. Church, aged 50, was much exhausted from attendance on a sick and dying family; took diarrhœa, which he totally neglected for some days, when he was hurried into the stage of collapse, which was consummated within a few minutes after we first saw him. The face was unusually blue, tongue very cold, hands and feet much shrivelled and very cold, heart irregular in its action, and breathing difficult. We took our usual course, but in a more determined manner. The calomel was directed in larger doses, and the brandy given more freely; but our patient sunk steadily, and died after some ten hours. The dejections in this case were unusually large, and he vomited considerably. He suffered from cramps, but the skin acted more freely than was common. There were but feeble efforts at reaction, and medicine seemed to have no effect.

Mrs. Stanley, aged 50, was taken on July 6th, 1849. She had come to the city eight or ten days previously, to see her father, who died of cholera. She had slept for a week in the room in which he died—after it had been somewhat purified, however. On the evening before the attack, she thought of taking some opening medicine, but deferred it. She rested pretty well through the night, but early in the morning vomited, and in a few minutes purged freely. We were called, and found she had already lost much fluid by the bowels, presenting the exact appearance of dirty soapsuds. She had vomited the same kind of fluid, but a little more clear. The pulse was small and corded, the skin cool and damp, breathing laborious and frequent. We prescribed calomel and opium every ten minutes, diminishing the dose in the manner before indicated; and gave brandy, iced-water, and ice, in the same manner. Within six hours from the first call, we found her collapsed. We still worked on, occasionally using sinapisms, and, for the cramps, gentle friction. Twenty-four hours from the commencement of the attack, she was still alive. We continued the treatment, and gave

injections of laudanum, &c., by advice of Dr. Fore, who was then in consultation. Twenty-four hours more went by, and she still lived. Our course was much confined to a little brandy and water, and ice. Twelve hours more closed her existence. We believe that no treatment in this case would have prevented death, and have only to regret the application of too much heat; but we found it hard to conquer the prejudices of the friends in its favor.

A woman on Fifth street, aged 65, had diarrhœa a few days before we were called. We found her vomiting and purging fluid similar to that in the last case; without urine, and nearly without pulse. She had cramps, with sweating and cold tongue. The usual prescriptions had little or no effect, and she died some eight hours after we were called.

A German woman had diarrhœa for two or three days, and had gone to a funeral the day before she was taken with rice water discharges. We saw her just as she was falling into collapse, which occurred in an hour after. She had cramps, no urine, cold tongue, &c., and had been taking heating medicines from the quacks. We did all we could to save her, but in vain.

We close this class of cases with the following, in which a departure was made from our ordinary course of treatment. A girl, eight years old, of delicate constitution, had been much fatigued by severe labor, exposure to the rays of the sun, and close watching, for some days, by her sick mother. During the time, her mother inquired if she had not diarrhœa. Contrary to her usual habit of speaking the exact truth, she evaded the question. It was afterwards discovered that she had been laboring under diarrhœa for three days before the occurrence of the second stage. The first evacuation we saw from this patient, was clear as the finest thin starch, with the exception of a slightly flocculent matter floating through it, near the bottom. There were no cramps, nor was there much restlessness; but there was great debility and sighing, with a suspension of urine.

This case ocurred on the 13th of June. We had read the warm recommendations of sugar of lead in the treatment of cholera, by Graves, Drake, and others, and had determined to give it a trial. We accordingly prescribed a grain of calomel and one of sugar of lead, with a fourth of a grain of opium, every thirty minutes. Turpentine was applied to the abdomen, and sinapisms to the epigastrium. Collapse did not occur for the first sixteen hours after we had seen her. The medi-

cine was continued regularly through the night. She still voided rice water discharges, but these were not frequent. She vomited within an hour from the time of the first of these discharges, and continued to do so throughout the day and night. In the morning, twenty-four hours after the first visit, we found her collapsed. She was then vomiting brown matter, which she had done the evening before. She died at 10 A. M. that day.

Now, in this case we had quite a fair opportunity to save the patient, and we believe that, had we given one grain of calomel with a drop of laudanum, every ten minutes, until fifty grains of the calomel had been taken, and stopped the laudanum after thirty or forty drops had been given, we should have succeeded in doing so. We erred in giving sugar of lead. It is probable that the stomach was first rendered irritable by it, and that the brown discharges ejected by that organ, were caused by its administration.

We acknowledge, however, that we have strong prejudices against sugar of lead as a medicine; having long and often tried it in noxious diseases, without deriving the benefits attributed to it by many distinguished members of the profession.

We turn with pleasure from this recital of fatal cases, to the more pleasing task of recording triumphs, in carrying successfully through collapse and consecutive fever, cases that seemed beyond the reach of the healing art.

Miss A., aged 26, was taken, June 15th, 1849. She had diarrhœa for three days, but much of this time attended to her household duties. Some hours before we saw her, she fell into the second stage; and when we first visited her, she was in profound collapse. In this state she remained eighteen hours, having, during this time, neither pulse at the wrist or temples. The evacuations were as clear as thin starch, having a slightly flocculent appearance. She voided no urine during a period of seventy-two hours; it did not flow for eighteen hours after reaction, and we presume she had really passed none for many hours before we saw her. At several times she lost the power of vision. This was especially the case four hours before reaction began, when she was blind for some time—probably more than thirty minutes.

In this case, the course before laid down was rigidly carried out, with this exception, that she took only one and a half grains of opium during the whole time. Two hundred grains of calomel were taken, and brandy was administered pretty freely, for we suspected that she had been in the habit

of taking a little when well. She recovered without being in the least salivated. The pulse rose, the heat became diffused, the dejections ceased, and the restlessness gradually wore away as the skin resumed its healty functions.

On May 11th, we were called to a child four years old, laboring under measles. As the measles receded, diarrhœa set in, and continued twenty-four hours, without showing any evidence of cholera; but now the rice water discharges began, and collapse soon resulted. In this case, we gave but little mercury, and that in the shape of hydrargyrum cum creta. At first, very small doses of laudanum were given, but we desisted from this very soon. The child vomited very much, and, knowing that the mother and some other members of the fam ly bore opiates badly, we thought that the laudanum had a bad effect. We gave instead, small doses of camphor, with a little nitrous acid, as recommended by Hope. Brandy and water was directed as the patient could bear it, and sinapisms were occasionally applied—for a few minutes at a time—to the feet or other parts. This child remained profoundly collapsed for forty-eight hours. At the end of that time, warmth began to return; and at the end of another forty-eight hours, the kidneys resumed their wonted action. In a few days the patient was perfectly well, and now enjoys good health.

On the 6th of August, L. D., a little girl, aged 5, was taken with diarrhœa, but it was suspended during the night. She was playful in the evening, and slept well. At 5 o'clock A. M., of the 7th, the diarrhœa recurred, and in an hour and a half she was in the second stage. An hour and a half more precipitated her into profound collapse. We first saw her at 8½ o'clock P. M., and began the treatment by giving, every ten minutes, one grain of calomel with the fortieth of a grain of opium, in forty or fifty drops of brandy and a little iced water. Twenty doses were given in this way. At 10 o'clock next morning, there was a little warmth about the head and neck; and at 11 P. M., the warmth and the pulse at the wrist were re-established. There had been no vomiting since 11 A. M., and only three small evacuations from the bowels. The brandy and water was continued; she had less restlessness, and her voice had become nearly natural. On the 9th, she was much better. At 8 o'clock P. M., the reaction had become quite general, and at 9, the heat of the skin was above the natural standard, though she slept pretty well, and had three small discharges, of a muddy color, from the bowels,

in the course of the preceding night. She had an injection of salt and water, which produced a large evacuation, both dark and offensive, after which the restlessness disappeared. On the 10th, she voided urine; and in a few days her recovery was complete.

The reader has observed, that there was but half a grain of opium given in the treatment of this case. Had more been given, we should probably have found the establishment of coma. About the same time, we gave to a child nine months old, half a grain of opium, in combination with calomel, during a single night. This child went through the collapse, and reaction was generally diffused; but symptoms of coma gradually crept on, and in three days after reaction begun, she was profoundly comatose, and died convulsed. Had we in this case relied on calomel and a little brandy, with a very few drops of laudanum, we think it highly probable that the patient would have recovered, or, at least, would not have died from affection of the brain.

On June 26th, a boy, 10 years of age, was attacked at 7 A. M., with purging, and was soon very ill. An empiric, who called himself *eclectic*, was called. He directed some of his infallibles, but they could not be easily obtained, and as the quack had told the family that there were no hopes of the patient, we were called. We arrived at 10 A. M., and found the patient collapsed, with no pulse, no urine; no pulse at the wrist or temples, surface very cold, eyes sunk, tongue and breath cold, evacuations clear, with flocculi, but without cramps, or at least they were very slight. We directed one grain of calomel, with the tenth of a grain of opium, to be taken every ten minutes, with half a tea-spoonful of brandy and water. This prescription was continued until ten doses had been administered, when the same amount of calomel, with the fortieth of a grain of opium, was prescribed every ten minutes, with the brandy. Of this prescription, twenty doses were given. In the meantime sinapisms were applied, as they could be borne, to the epigastrium, wrists, and ankles; and turpentine, in the usual manner, to the abdomen.

The collapse continued ten hours, without any evidence of reaction. At the end of this time, we could perceive a little warmth about the neck and shoulders, which gradually spread over the head and chest; and within twenty-four hours it had become general. No brandy was given after the first twenty-four hours, nor any other medicine but one or two five-grain doses of rhubarb, to move the bowels. He had the usual

dark and fœtid stools; was for some days restless, and the stomach was weak; but within a week he was convalescent, and he has at this time perfect health.

The next two cases occurred at the Cincinnati Orphan Asylum. There were but four well marked cases of collapse in that institution. These all ran into the second stage during the after part of the night. We had given the most positive directions that, if severe vomiting or purging should occur in our absence, half a grain of calomel and the thirtieth of a grain of opium should be given every ten minutes, until we could see the patient. We had powders of this size, made for that purpose. Our directions were not followed in the first two cases, and they both died; the first on the 5th of August, an hour after our first visit; the second lived only ten minutes after we saw it.

The next case that occurred was treated in the manner above directed, the powders being washed down with twenty drops of brandy and a little water. The patient was three or four years old, and took twenty powders, or two-thirds of a grain of opium; which was pretty large dosing, we confess. The collapse continued eight hours, when it yielded to reaction; and within a few days, the consecutive fever subsided, on the establishment of the healthy action of the liver, kidneys and skin.

Very soon another case occurred, in a child about four years of age. The same plan of treatment was pursued as in the last case, but we believe only twelve of the powders were given before reaction supervened. The consecutive fever set in in the usual way; but when purging came on, the dejections, instead of the usual dark color, showed but little evidence of bile. At the end of a week, this patient collapsed a second time. We gave the same powders persistently, until some twenty of them had been taken. The collapse again yielded. The system reacted about as before, but the alvine discharges were dark and copious. We believe that this patient is now living.

The two following cases are interesting, as showing how much quackery a patient may bear without being destroyed.

Mr. Ericson, a delicate man, aged 28, was taken with diarrhœa, on or about July 17th, 1849. An empiric was called at 10 o'clock in the morning, who gave him some heating medicine, and then fell into the following course: half a table-spoonful of black pepper, and the same amount of common salt, with half a tea-cupful of vinegar, to be taken, hot

as possible, and repeated every ten minutes until four doses had been taken. This course brought on vomiting, which it could not help doing. He, however, appeared better through the after part of the day and night. The diarrhœa, however, still continued, and in the afternoon of the second day, he took ten more doses of the same medicine, at the same intervals. The consequence was, a recurrence of the vomiting, which had the effect of relieving him of the poison nearly as soon as it was taken.

At the close of this medication, the patient had become quite cold, and bottles of hot water were applied to the feet, with sinapisms to various other parts. On the third day the patient was collapsed. Various things were given him. The tincture of prickly ash was administered in tablespoonful doses for some time; and general frictions with cayenne pepper and brandy were used. Although the patient was now cold as marble, ice was constantly kept to the head, and continued throughout the ensuing night. During all this time, infusion of logwood was given—at I know not what intervals, as an injection, combined with other materials; a teaspoonful of laudanum being added at one time.

The leading quack of the *eclectic* tribe was called in, and justified what had been done. He declared that nothing more could be usefully given; and the patient was abandoned to what seemed his enevitable fate. On delivering this wise conclusion, one of the attending quacks said, that *he had given the patient enough medicine to kill ten men!* This was true enough, if the stomach of the sick man had not fortunately ejected most that was given him.

We were called to see this patient on the morning of the 20th, or at the end of three days from the time the empirics began their medication. He had then been in profound collapse for some sixteen hours; the ice was yet on his head, and the pepper and brandy were being applied to his person. He was very restless, tossing himself from side to side, which produced great prostration. The breathing was very laborious, and the heart much affected by the exertion. There was no vomiting, no purging, no pulse, no discharges of urine. The breath and tongue were as cold to the touch as the surface of the body. Under these circumstances, with the addition of an occasional cramp, we began the treatment. One thing had been done by a friend of ours, during the preceding night, which was, no doubt, of much use in preserving life; that was, the administration, every few minutes, of

a little brandy and water, which was fortunately not rejected. We continued the brandy and water every ten minutes, or less often; and ordered one grain of calomel and the twentieth of a grain of opium, every twenty or thirty minutes. We could see but little advantage in giving, at this advanced stage of the disease, more of either of these remedies. Our object in giving the opium was, to obtain its stimulant effect; and we expected of the calomel that it would excite the liver, kidneys, and skin, to the proper performance of their functions.

The frictions had been so constant and violent, with various rubefacient applications, that much of the skin was partially abraded. This condition of the surface forbade all further exertion that way. We simply had the extremities covered with soft new flannel in such a manner, that it could not easily be thrown off by the tossings of the patient. At 8 o'clock P. M., we thought that we could feel a little warmth about the neck, shoulders, and temples. We could feel, also, a feeble pulsation of the temporal arteries. On the morning of the 21st, the artery could be felt at the wrist. The arterial action became more perceptible on the 22nd, and on the 23d reaction was general. On this day purging occurred, both copious and dark, and in the evening urine was voided in small quantities. No purgative medicine was given for the purpose of moving the bowels, but one or two injections of warm salt and water were ordered. The calomel was the only medicine given that could have a purgative effect, and of that but twenty grains were administered. The brandy was continued in small quantities throughout the collapse and reaction, but only at long intervals toward the last. In all the cases reported, we had no instance of salivation until this; and here, free running at the mouth was produced by twenty grains of calomel, while one or two hundred grains had in other cases no such effect. We saw this patient once or twice a day from the 24th to the 31st, when we discharged him well. His health has since been better than it ever was. We presume he is indebted for this improvement to the salivation.

Mr. Berkheimer, aged about 40, was taken with diarrhœa, some time about the 27th of June. On the next day, we believe, he became worse and sent for a quack in the neighborhood. This empiric seemed to differ somewhat from other *eclectics*, whom we had noticed; for, instead of black pepper and salt, he prescribed allspice and black pepper. A decoc-

tion made of these, was given in large and frequent doses, which were, fortunately, immediately ejected by the stomach. Injections, composed principally of the same materials, were given, without opiates of any kind. Various external rubefacients were brought into play; but the patient continued to get worse. He had purging, vomiting, cramps, cold surface, &c. Indeed, from what we could learn, the quack seemed aware that his patient was very ill, and, in his opinion, in a hopeless condition. Collapse occurred soon after he was called.

The patient fell into our hands eight hours after he began to take medicine. We found him in collapse, vomiting and purging rice water violently, and with other severe symptoms of this stage. Under all the circumstances, it seemed improbable that he would recover. We, however, directed three grains of calomel every ten minutes, with the twentieth of a grain of opium, each dose to be followed by brandy and water. This plan was continued till one hundred and twenty grains of calomel had been taken. Our usual course in other respects was followed here. Within less than an hour the patient ceased to vomit; and after about four hours, a little heat about the neck could be perceived. In twenty-four hours from the time we first saw him, the warmth had extended a little. He was now more quiet; but, as yet, reaction had extended but little over the system. Toward the close of the day, its development was more decided. There was no discharge of urine until the evening of the following day, or the third after we saw him, when he voided pretty free quantities. We gave scarcely any medicine after reaction had taken place. The calomel acted freely on the bowels, without assistance; and in this, as in the preceding case, there was severe salivation. The patient recovered completely, and is now enjoying good health.

The following is an interesting case, on account of its severity and the age of the patient.

Mr. ———, aged 50, was taken ill, September 10th, during the night. Dr. S. was called, and found the patient so ill that he left without doing much, and did not return, supposing that death would certainly result. Some hours afterward, Dr. B. S. Lawson was called, and prescribed freely of calomel and small portions of opium. During the evening of the same day, we saw the patient in consultation. He then vomited much, had cramps, voided no urine; the tongue was cold, and the pulse at the wrist nearly gone. We determined to con-

tinue the calomel, with much reduced quantities of opium, and small portions of brandy, every ten or fifteen minutes. Gentle frictions were directed, with a view to relieve the cramps. The next day, Dr. Lawson becoming ill of cholera, the treatment devolved upon us. The calomel was continued until a hundred and fifty grains had been taken, but the opium was soon discontinued. The brandy was still given, but at longer intervals. After the collapse had continued *seventy-two hours*, returning warmth was perceived, and the temporal arteries began to pulsate. The purging had ceased long before reaction supervened, but vomiting was occasional throughout the collapse. The patient recovered, and salivation followed.

We have given a sufficient number of cases to convey a correct idea of our manner of treating this malady in its most fatal forms. The reader has observed a general similarity between our plan of treatment and that of Dr. Ayre, of Hull. That gentleman directed the calomel in less than half the doses prescribed by us, and gave them at intervals of five, instead of ten minutes. With the calomel he gave no brandy, but one drop of laudanum with each dose. We generally gave opium in pillular form, because bad nurses were less apt to make mistakes than when otherwise directed. Under favorable circumstances, a drop of the tincture every five minutes is, probably, to be preferred. Dr. Ayre continued the mercury much longer than we did, sometimes giving five hundred grains in a single case. We never extended this amount beyond a hundred and fifty or two hundred grains, always withdrawing it at the close of collapse, where we began early; and rarely giving it after the complete establishment of reaction.

Our success in the treatment of collapse was not so decided as that of the writer just named, but we feel that, under all the circumstances, it was eminently satisfactory. In three-fourths of all our cases probably, various nostrums had been taken by the patients before we saw them. These had, in most, if not all the cases where they were given, brought about vomiting; a circumstance more to be dreaded than any other consequence following the administration of those stimulating draughts prescribed by the quacks. It would seem, too, that in this locality, fatal cases ran their courses more rapidly than at Hull; of course the chances of recovery from treatment were diminished.

A word in regard to the intervals at which the doses were

given. We directed them every ten minutes, but the most careful nurses frequently did not begin to prepare the medicine till the expiration of the time; so that in a majority of instances probably twelve, and with bad nurses, sometimes fifteen or twenty minutes intervened. On one occasion, during the summer of 1850, a whole night was allowed to pass without a single dose being given, and a fatal termination was the result of this neglect.

We think that enough has been said to show the superior efficacy of small doses of mercury frequently repeated, to larger ones at longer intervals. We believe them preferable, not merely because they are more satisfactory to the patient and his friends; but because they have a specific effect, which larger doses have not. Many years since, we lay in an adjoining State, with remitting fever. Our physician could get no medicine to stay on the stomach. We felt that unless this irritability could be arrested, we must succumb; and we insisted on one grain doses of calomel, in the form of a pill, every half hour or hour. This course had the desired effect, within twenty-four hours. We believe there is great reason for the administration of continuous small doses of a powerful remedy, while there is but little in favor of very large ones.

In regard to opium, there is with us no question that its only beneficial effect in the latter stages of cholera, is its stimulant power. Hence the benefit of very small portions frequently repeated, in the form of powder or tincture. It seemed to us to prevent recovery in all cases where it had been largely given, the patient becoming comatose toward the close of collapse; and continuing so, in most or all the cases where more than a few grains had been given, until a fatal termination ensued. And this result sometimes occurred, as we have seen, after the establishment of reaction.

No patient can be cured by medicine in an hour, or by immense doses in a short time. The human stomach can only retain and act with advantage on a certain amount of food: its powers can only endure with advantage a certain quantity of drugs. The system of the adult emerges slowly from collapse; that of the infant more rapidly. The medical man but too often thinks he has stopped the vomiting and purging by medicine, when, in fact, the disease has drained off all the fluids in its power. The capillaries refuse to act, and here life trembles on the brink of eternity. If you now seek a sudden reaction, you will, in most cases, altogether prevent it. If you stimulate immoderately, in infantile cases

congestion of the brain, or inflammation of its membranes, will probably result. By pursuing the same course in the adult, you are liable to establish a violent fever, with irritation or inflammation of the mucous surface of the alimentary canal, incompatible with life. You must, however, in a great measure, allow the heart and arteries to take their own course in diffusing their scanty contents. You may aid them in their efforts to do so by the use of such stimulants as will be borne by the stomach, and be easily taken into the circulation, and which, when there, will have a tendency to excite gently the powers of life without producing narcotism. To these means must be added gentle remedies for re-establishing the healthy functions of the liver, kidneys and other organs, the normal action of which is a matter of the first importance. By pursuing this course, much may be hoped for; by the opposite, very little.

FOURTH STAGE.—The treatment of this stage has been in a great measure anticipated in speaking of the previous stages. As before observed, we gave, as a general thing, very little medicine of any kind after the establishment of reaction. Our patients had generally taken from a hundred and fifty to two hundred grains of calomel, and within a short time—that is, twenty-four or forty-eight hours—purging of bilious matter occurred. When it did not take place within that time, injections were directed every few hours, until catharsis resulted.

The use of purgative medicines during the consecutive fever was dangerous. It was our lot to see cases that had reacted well, afterwards succumb from their use. The following case is to the point, and gives, in addition, a pretty just conception of the disease throughout:

A lady of more than 60 years, whom we had known for a quarter of a century, and who had delicate health, had been ill of dysentery. From this disease she had been gradually recovering for some days, so that she had begun to work, though feeble. Her mouth became sore from the mercury she had taken, which was only eight grains, and had not become entirely well when she was taken with cholera. This disease had been in her house in its diarrhœal stage. After her salivation, we felt too much at ease about her case, as we were then inclined to consider it a prophylactic against cholera.

We called to see her July 2d, 1849. She said she had diarrhœa, and that the evacuations were light colored. She was then going about her room. She had taken some quack

medicine of a heating nature to stop the diarrhœa, and said she would like to take a little laudanum, which she did. We felt opposed to giving her more mercury just then. Some hours later we were summoned to see her, and, when we arrived, found her unable to be up. The evacuations were frequent and profuse, and of the color of dirty soapsuds, and she was rapidly running into collapse.

We began the treatment by giving three grains of calomel and one-twentieth of a grain of opium, with half a teaspoonful of brandy and a little water, every ten minutes. Mustard was applied to the epigastrium, wrists, and ankles, and the abdomen was oiled with turpentine. She was kept quiet as possible, and soon became unable to rise. The medicine was continued until twenty doses had been taken, when the quantity of opium was reduced to the fortieth of a grain, and the calomel to two grains. Ten hours after we first saw her, she was in profound collapse. At 11 P. M. she could with difficulty be heard to speak. She had ringing in the head; the pulse at the wrist and in the temples had been extinct four hours, and she seemed to be dying. Her own statement, made in a low whisper, was that she was "going." We gave her a table-spoonful of brandy with water. This seemed to lessen the debility a little. The evacuations had become small, but there was still an absence of urine, as there had been from the beginning. During the night, she complained occasionally of blindness; but this, we think, lasted but a few minutes at a time. At ten o'clock we had given nine grains of calomel within twenty minutes, and then returned to the two grain doses every ten minutes.

We remained with this patient all night, expecting every hour would bring death. Towards morning, however, we could find a little warmth about the neck; and the pulse at the temple was perceptible. She gradually became warmer, had less restlessness, and more power of speech. During the day reaction was diffused over the body, and on the following night she slept well. On the succeeding day, collapse had entirely disappeared; and in the evening she voided urine. On the 5th, the calomel she had taken acted upon the bowels with much freedom, and continued to do so for thirty-six hours, accompanied by tenesmus. The evacuations had by this time become small and harassing. This feeling gave the patient the idea that purgatives would relieve her. We with reluctance permitted her to take, we believe, ten grains of jalap. It operated after some hours, but even one opera-

tion prostrated her so much that she gradually sank, and died within twenty-four hours.

In reviewing the treatment of this case, we feel that two errors were committed. We should have given calomel when we first saw her, notwithstanding the previous salivation; for she was not salivated by that which she subsequently took; and at the close, we should have persisted in the use of laudanum or Dover's powders (which we gave) to quiet irritation, instead of giving purgative medicine.

We were called in consultation with Dr. C., late in June, 1849, to a patient aged about forty-five. He had been sick some hours; had taken calomel, opium, sugar of lead, and capsicum, in pretty free doses, and some stimulants of a quack character had been given. The patient had vomited much and purged still more. He was now collapsed. We prescribed three grains of calomel every ten minutes, with a little brandy and water. When he had cramps he was to be rubbed gently with dry flannel; and his chamber was to be kept clear of visitors, and ventilated as thoroughly as possible. At the end of eight hours reaction commenced, and soon became general. As the patient was not ours, the treatment of the consecutive stage devolved on Dr. C., who gave a mixture composed of equal parts of castor oil and aromatic syrup of rhubarb. We think a table spoonful of this mixture was given every hour or two, until purging was induced. This soon became too copious, and sugar of lead and opium were given to check it. These produced irritation of the stomach, with occasional vomiting. Urine, however, was discharged in due time, but the irritation of the stomach and bowels persisted; congestion of the brain, and death, followed; though life was protracted for many days after reaction. Had the mercury in the system, with an occasional injection of warm water, been relied on, this result would probably not have occurred.

We have only to add to this detail of the treatment used by us, that a majority of our patients were not salivated, even by the largest quantities of calomel that were given; and that where it did occur, no injury resulted to the case.

Anomalous Cases.—These cases were not numerous, but occasionally occurred, and required modifications of treatment. In Europe, deaths occasionally occurred in cases where there was neither vomiting nor purging, and where dissection revealed the presence of rice-water in the alimentary canal. We witnessed no fatal cases of this character here,

though there were numerous cases in which there was little vomiting, and a few in which there was little purging. The case of Prof. Harrison was one of this latter character. That lamented gentleman vomited extremely, but purged little; a circumstance the more singular, as he had for a long time been subjects to attacks of diarrhœa. The matter ejected from the stomach, in large quantities, was a light colored fluid. The dejections, though small, were of the same character.

We had two cases in which there were violent cramps of the muscles of the extremities, and in one of them they extended to the abdominal muscles. One of these was an intemperate Irishman. In his case, we gave pretty large doses of opium, and very large ones of calomel, with sinapisms and gentle frictions. In some hours the cramps ceased and reaction occurred. He had not collapsed, however, though the skin was cool and moist. Some hours after relief from pain he took a dose of castor oil, which, with the calomel, operated well. He was freely salivated; when this got well, the patient was well. There was neither vomiting nor purging in this case.

In the other patient, a sober American, with a powerful physical frame, there was a laboring pulse, with profuse but not cold sweat, and severe cramps of the abdomen and extremities. We could not avoid recognizing the case as one of cholera, notwithstanding there was neither vomiting nor purging. It occurred to us that if we gave opium, without accompanying it by depletion in this case, coma would almost certainly result. He was therefore bled freely from the arm, which relieved the cramps in a great measure before the bleeding was stopped. Sinapisms were now applied and calomel, with moderate doses of morphine, was given. On the ensuing day, mild purgatives were given, and operated well, leaving the patient in a convalescent condition. This was the only case in which we resorted to bleeding, and the only one, in our opinion, that would have been benefited by it. Had serous fluid been discharged freely into the bowels, it would, we presume, have been unnecessary in this case. As it was, the patient was probably saved by it. The action of the heart immediately became more calm; the pulse softened; and the profuse sweating subsided under its use. In these two cases the action of the kidneys was not altogether suspended.

We had, during 1849, a single case, where the patient, a man some 55 or 60 years of age, sunk, after the establish-

ment of consecutive fever, from over action of the kidneys. These organs resumed their functions at a later period than usual after reaction; and when this action began, it soon ran into excess. Large quantities of light colored urine were discharged through a period of several days. The patient became feeble, though his appetite was good. There was unusual pallor, and soon some difficulty of breathing. In a week from the time of reaction, he died, evidently from the above named cause. We regret that we had no time to have the urine analysed.

DYSENTERY. During the prevalence of cholera, both in 1849 and 1850, and for weeks after the subsidence of that malady, dysentery prevailed as an epidemic. This was especially the case in the latter year. Many cases of incipient cholera terminated in dysentery, and occasionally the second stage exploded into it. The disease, that year, was characterised by symptoms somewhat different from those usually attending it. The tormina were more frequent and more severe; there was more bilious matter, more blood and mucus, in the dejections; and we think there was more flatulence and greater tumidity of the abdomen. The more copious evacuations proved to us, that its origin was, either remotely or directly related to that of cholera.

In the treatment, we, in general, pursued the same course that long experience and attentive observation had taught us was most successful. If we found, when called to a patient, that he would bear blood-letting, we bled from the arm freely; and if the tormina and tenesmus, with much tenderness of the abdomen, continued or occurred after the general bleeding, leeches or cups were directed. From a half to a dozen or two of the former, and six or eight of the latter were applied; and they were occasionally recurred to, if necessary, in smaller numbers, proportionate to the severity of the symptoms. In general, however, a single application was sufficient. But little dependence can be placed upon the condition of the pulse at the wrist in this disease, for it is not often hard or resisting, and is very frequently regular, and, in force not much above the natural standard. When, however, we could feel the pulsation of the abdominal aorta much stronger than in health, we felt authorised to abstract blood in some manner. Smallness of the pulse, with profuse sweating about the head and neck, and constant pain, is almost unequivocal evidence, that intense, if not fatal, inflammation is present, and demands the most decided course of treatment.

When blood-letting was not demanded, we preferred to begin the treatment by the administration of an emetic or a cathartic. When the former was decided upon, ipecacuanha was given; when the latter, either calomel and jalap or epsom salts. These purgatives were, of course, varied to suit the particular case. After two or three free evacuations were procured, the pain &c., were mitigated by a pretty free dose of opium, combined with a grain or two of calomel, and from half a grain to one or more grains of ipecacuanha. This prescription was repeated every three or four hours for twenty-four, and sometimes forty-eight hours, according to the symptoms present. We then purged the patient with salts or jalap. In some weak constitutions, we directed castor oil; but, having long preferred the hydragogue cathartics in this disease, we were not disposed to abandon a practice which the pathology of the disease indicates, and common experience justifies.

During the first few days after this purgation, we gave one or two grains of calomel combined with the fourth, sixth, eighth, or twelfth of a grain of morphine, or the equivalent dose of opium, every four hours, or less often if the opiate sufficiently allayed the tormina and tenesmus. Occasionally, hyosciamus was directed, where the opiates were not well borne; but this was not often the case, as most of our patients could take morphine, by beginning with small doses.

We found, particularly during July, 1850, that salivation was easily induced. This we attributed to the great heat of the weather through that month. We occasionally found our patients salivated after the administration of from six to ten grains of calomel. We, however, lost no case in which it occurred, though we do not suppose that making the mouth sore, cured our patients. We gave the mercury to excite the healthy action of the glandular system, especially that portion connected directly with the abdomen.

Where we began the treatment by an emetic, we followed it, so soon as the stomach would bear it, by a cathartic of the kind above directed. We sometimes, particularly where there was much retching, repeated the emetic. We always gave the patient as much ipecacuanha as he would bear, throughout the treatment. This was especially the case with children, whom we nearly always vomited once. For the treatment of the young in this disease, we must refer to what we have said on an other occasion.*

* Western Journal of Medicine and Surgery.

It is not our intention to go with further minuteness into the treatment of dysentery; but we hope to be excused for referring to an essay on that subject, published in the *Western Lancet* for February, 1851. The committee of practical medicine of the American Medical Association, reported to that body, in 1851, that this essay had been read before the Medico Chirurgical Society of Cincinnati, and that a number of gentlemen had, in the main, sustained the views of the essayist. It is, indeed, singular, that so many medical men could be found to endorse the notions of this writer; but all who were present on that memorable occasion did not agree with him in all his positions; for even some of those who were willing to praise, were in favor of occasional purgation. Some, at least, of these gentlemen must have felt that they were giving their assent to doctrines, at variance with those of most, if not all, the distinguished writers and practitioners, from the time of Sydenham to the present; and we fear that the society which caused the laudation of the paper, did not feel properly its responsibility to community at large.

We find in this essay the following expression: "the mercurial practice in this disease, was unapplicable and unhappy." Now, if the writer means that salivation was not useful, there may be some truth in the remark; but we find that in an other part of his essay, he says this treatment "is absolutely the signed warrant of death to the patient." Again he declaims, in a style peculiarly his own, and with equal vehemence, against depletion. He says, "here, in passing, I will say, that the depletant and alterative mercurial treatment is receiving the *go-by* in all inflammatory affections, at least by the respectable portion of the profession." We presume the doctor thinks that "the respectable portion of the profession," includes merely a few satelites of his own; for he certainly does not believe that more than a very small minority of the profession in Cincinnati agree with him in sentiment.

This writer gave, irrespective of fever, stimulants; gave no purgatives; and relied on morphine, oil of almonds, and a few inert adjuvants. His idea seems to be, that opiates and stimulants, with beef tea, were all that could be done towards the cure of the dysentery, as it appeared here in 1849 and '50.

Let us look, now, at the results. He does not give the number of patients saved by him, and we fear that he never will. He tells us, however, that "in children it was severe,

and, as I have before said, in a majority of cases fatal.' We believe that he has *not* "before said" in his essay, that it was in a majority of cases fatal, but we admit the statement. This was an appalling mortality; worse than cholera; and it proves to us, that the treatment which brought about such results, was horrible in the extreme. Much better would it have been to have left these unfortunate patients to nature.

In our own practice we lost one patient, over five years of age, by dysentery, in 1849, and only one in 1850. Under the age of five years, we lost not more than two or three in either year. All our adult patients recovered. These results prove, that the disease was, in reality, easily conquered, when properly treated. We saw much of it, and know that we were seldom, or never, more successful than during those years. The two patients of five years whom we lost, were neither bled, leeched, nor cupped, a circumstance which we now much regret, believing as we do, that depletion, by one of these means, would probably have saved them.

NOTE. The reader will recollect the observations in the foregoing essay on the cholera, as it occurred at Greasy Ridge. That statement was made from information, derived from a lady who appeared to be well informed with regard to the circumstances of the matter. The author subsequently learned from his friend, L. R. Johnson, that the precise facts could be got; and he kindly promised to obtain them; but the statements came too late to be inserted in the proper place; hence the necessity of appending them in the form of a note. It will be observed, that there is a wide difference in the facts from the statement in the body of the essay; but as those of Dr. Churchill may be relied on as authentic, the reader will be pleased with their publication. The statement is given in the language of Dr. L. R. Johnson:

"The history of the cholera at Greasy Ridge is strongly confirmatory of the theory of contagion. This district is situated in Lawrence county, Ohio, near the Ohio river. That portion of the Ridge on which the disease prevailed, is more elevated than any portion of the surrounding country; yet in an area of scarcely three miles square, with a population not exceeding one hundred persons, there were forty-five deaths from cholera. The following particulars are kindly furnished by Dr. J. L. Churchill, at that time a resident in or near the infected district.

"A man by the name of Mart, visited Gallipolis for the purpose of trading; and hearing of a bad case of cholera, he determined, never having seen the disease, to visit the patient. He did so, returned home a distance of fifteen miles, and next morning had cholera, of which he died—not, however, before other members of the family were attacked by the same disease. Neighbors came to their assistance, took the disease, went home, and died. Dr. Hibbard, of Gallipolis, visited them; while prescribing, a neighbor came into the house, apparently in good health, but in an hour and a half he was a corpse. Dr. H. left, saying

he could do nothing for them; and, after going some eight miles, her, too, died. The neighbors now abstained from visiting the sick. In the house occupied by Mart, there were known to be six or seven dead bodies, and it was proposed to burn the house with its contents. Three men, however, who lived two or three miles distant, after smoking themselves with sulphur, washing with spirits, &c., and carrying with them a kettle of burning tar, entered the house, put the bodies into boxes, and deposited them in a grave. Two of these persons had cholera, but recovered; there is some uncertainty about the third.

"The mother of Mart, who lived a mile and a half from the house, took away a little child from the ill-fated spot, hoping to save it; but it died, and she herself was taken sick, but recovered. This was the only recovery within the district three miles square, before referred to.

"A family, consisting of a man, his wife and one child, were found in their house dead from cholera. The man had been a visitor at Mart's house during the sickness there.

"A man named Pancake, who had the temerity to visit a cholera patient contrary to the advice of a person calling himself a physician—who did not himself venture into the presence of his patients—died by the side of the road, after an illness of an hour or two. A family named Allbright were swept away. A Baptist minister, named Woodruff, went home, after visiting a patient dying of cholera, and himself and family, some eight or nine persons, were buried within three or four days.

"'During the entire time of the prevalence of this disease,' says my informant, 'I do not know of a single instance of cholera without contact with, or being in presence of, a patient in a dying state.'"

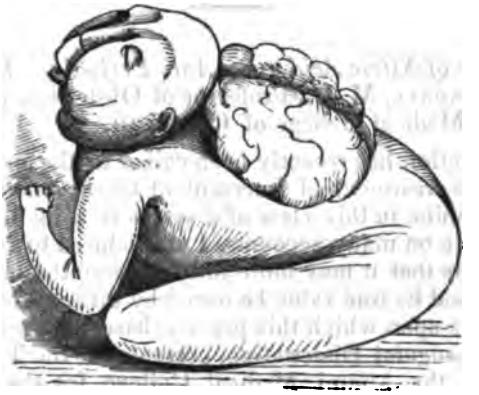
Case of Monstrosity. By JULIUS S. TAYLOR, M. D., of Carrollton, Montgomery County, Ohio.

(Read before the Montgomery County Medical Society, 1853.)

Mrs. L., of good constitution, well formed and very healthy, was confined with her first child, during the month of February, 1853. During the term of gestation, she enjoyed good health, except suffering from the great distention of her abdomen, which in the eighth month, became exceedingly distressing, preventing her from lying down with any comfort. Appetite good, bowels regular, and, to use her own language, "when up and about, felt as well as usual."

Three days before her confinement, had slight labor pains, confined mostly to her back. In the second day of pains, sent for me, having had a considerable gush of water from the vagina. Upon examination per vaginam, I found but slight effect upon the os uteri by the pains. The os uteri was but slightly dilated, through which the membranes could be felt, presenting a large cushion filled with water.

Having satisfied myself that all was right as to the progress of labor, I left, with a request to be called when the pains should increase. On the following day, called again, and found the os uteri dilated to half its capacity, with light pains operating regularly on the os uteri. Again left on more urgent duties. Called at 8 P. M., found the os uteri fully dilated, pains regular, and the membranes entire, presenting a large cushion filled with water, through which, by passing the index finger high up under the pubes, the head could be felt, the face presenting. At 11, the pains became more pressing and regular. About 1, A. M., the membranes ruptured, giving forth a tremendous quantity of liquor amnii. Two gallons were caught, and a considerable more passed outside of the vessel. After the evacuation of the water, the lady was entirely easy. The face presented at the perineum, and with one or two more pains, the child was expelled, and found to be a monster, of which, the cut below gives a correct appearance.



The child breathed freely for four or five minutes after excision of the cord, when it died. Its weight was nine pounds and a half. Its external appearance, except the malformation of the brain, was perfectly natural. It was a girl.

During the term of gestation, the lady had been full of misgivings about markings upon the child, which she attributed to having been frightened by a deformed child soon after she found herself pregnant.

Has the imagination of the mother any effect in producing markings or malformations upon her offspring?

This question has long been settled against any such power or effect being produced by the imaginations of the parent; and yet it is believed by many that such effects are produced by such operations upon the mind.

One of those who were in the full belief of such powers, was the mother of the above mal-formed child, who, since the birth of the above, has been impregnated again, and was confined a few weeks past. Before her last confinement, I was particular in questioning her as to her misgivings or imaginations in reference to the second child, and found that she had been doubly troubled about a mal-formed child during this term of gestation, to what she had been with her first; and yet, upon her second confinement, she had the great happiness of giving forth a fine, well-formed and large child, free from any markings or imperfections,—the result of which not only gratified her, but entirely dispelled her belief in her own power to produce any such unpleasant results upon her offspring.

On the Use of Nitric Acid as an Anti-Periodic. By GEORGE MENDENHALL, M. D., Professor of Obstetrics, &c., in the Miami Medical College of Cincinnati.

My attention has recently been called to the use of Nitric Acid in the treatment of intermittent fever; and as a substitute for quinine in this class of diseases is a matter of some consequence on many accounts, I am induced to lay it before your readers that it may more fully undergo the ordeal of experience, and its true value be tested by different observers.

The facts upon which this paper is based, are taken mainly from an Inaugural Dissertation, presented to the Trustees and Faculty of the Miami Medical College, for the degree of Doctor of Medicine, by E. T. Bailey, M. D., of Emmetsville, Indiana.

He states, that in the section of country in which he resides, there is a large portion of marshy land, and therefore the circumstances are favorable to the development of autumnal fevers. His attention was first attracted to the use of nitric acid in the treatment of intermittent fevers, by noticing its effects in a case of chronic intermittent, which was attended with profuse night sweats, and for which complication he administered the remedy. In this case, there had been daily paroxysms for the preceding five days; night-sweats profuse,

the tongue coated, and the bowels constipated. Nitric acid was given in doses of six drops, diluted with water, in the evening; and he was agreeably surprised to find that the paroxysms did not return on the following day; and this circumstance induced him to try its effect in other cases as an anti-periodic.

Since that time he has treated over ninety cases of intermittent fever with this article, with remarkable success. Of this number, all recovered promptly except ten, and in every one of these unsuccessful cases, the remedy was discontinued contrary to directions.

Fifteen of the whole number were of the tertian type, and seventy-five of the quotidian. In fifty cases, there was no return of the chill after commencing the use of the acid. The others were rarely attended by more than one paroxysm, and in no case by a third. When the patient had a paroxysm after taking the medicine, it was in every case diminished in intensity and duration.

In Dr. Bailey's practice, this remedy has entirely superseded every other article for the purpose of interrupting the paroxysms of intermittents. His mode of proceeding is to give from five to eight drops of the commercial nitric acid, properly diluted, once in six hours, without regard to intermissions or exacerbations. Cathartics and alterants may be necessary for the purpose of changing certain conditions of the system; but so far as the interruption of the paroxysms is concerned, the acid may be given without any preparation of the system whatever, if we choose to do so.

The following cases are selected from among many others, in order to show the different varieties of the disease, and the mode of treatment pursued:

CASE I.—Mr. L. S., aged 55, of temperate habits, called upon him on the 12th of July, 1852. In May previous, he was attacked with intermittent fever, which was cured by quinine, but relapsed in six weeks, since which, the disease has continued with daily paroxysms. The tongue was furred, and the bowels constipated. A purgative of calomel and rhubarb was ordered at bedtime. A violent fever followed the chill, which occurred at 11 o'clock, A. M., of this day. Five drops of nitric acid was directed to be taken every six hours, diluted so as to make a pleasant drink, to be commenced on the following morning at 6 o'clock, the 13th. The calomel and rhubarb produced two copious operations from the bowels, prior to commencing the nitric acid. Three hours

After the exhibition of the remedy at 6 o'clock, as directed, a chill came on, followed by a high fever. The medicine was continued through the day.

14*th*. The patient is free from a paroxysm; no fever; the tongue clean and moist; and the medicine was directed to be continued as before.

15*th*. The tongue improving; bowels regular, and pulse very little excited; no chill. Medicine continued.

16*th*. Patient has entirely recovered.

Forty-five drops only were taken in this case, as the medicine was not given at night.

CASE II.—Sept. 10th, 1852, was called to see Master L. A., aged six years. He has had intermittent fever since the 6th inst., with daily paroxysms, followed by high fever. The tongue was moist, and the bowels open. Four drops of nitric acid were ordered, which was diluted as before, so as to be easily taken; one dose to be taken at 12 o'clock, and the second at 6 in the evening; to be resumed at 6 the following morning, and repeated at 12 o'clock.

11*th*. Visited the patient in the afternoon. He had not had any chill; the tongue was clean and skin moist, with no excitement of the pulse. Discharged cured.

In this case, the medicine was discontinued to see whether the effect would be permanent.

12*th*. No return of the paroxysm. Sixteen drops were taken in this case.

CASE III. *Sept*. 20*th*, 1853. Saw Miss D. N., aged 28. Three days ago, she was attacked with intermittent fever, the paroxysms of which commenced at 10 o'clock every day, and the chill was followed by high fever. A mild purgative was ordered at bedtime; and sixty drops of nitric acid were diluted with two ounces of water, and directed to be taken in nine doses, at the rate of three doses per day, commencing on the morning of the 21st.

25*th*. Saw the patient to-day, and found that there had been no return of the paroxysms for three days. In this case, sixty drops were taken.

Several other cases are reported with the same result, but it is not necessary to repeat them here.

It is stated that relapses seldom occur—much less frequently than after the use of quinine, but upon this point more precision is required. It has been administered in all the various forms of intermittent fever which were presented to the author of the essay, and no unpleasant effects observed

in any case. Should they be verified by the experience of others, this remedy will be found to be a valuable agent, and to possess the following advantages:

First. Certainty as an anti-periodic. *Second.* The power of invigorating the general system, while at the same time it has alterant properties. *Third.* Facility of exhibition, being much easier taken than quinine, barks, &c. *Fourth.* Freedom from the unpleasant effects which sometimes follow these remedies. *Fifth.* Cheapness of the article, which is often of considerable importance in miasmatic regions.

Remarks on Consumption. By Wm. Guilford.

(The following communication is by a gentleman, who is not a physician; but having studied chemistry, has been led to his present views on the subject of tubercular disease.)

The science of physiology, has latterly enriched the study of medicine to a very great extent. The chemical components of the different humors have been subjected to analysis, and a great many diseases, that have hitherto baffled the skill of the most erudite physicians, have been proven to have been occasioned by a deficiency or excess of some of the chemical compounds of the humors of the human system, and by synthesis—artificially supplying the deficient component—health has been restored to the diseased system.

How necessary is it, therefore, to enquire pathologically into the nature of the different diseases, and comparing the well known phenomena of chemical affinities apar. from the human system; to endeavor by inferrence to ascertain whether or not the vital principle modifies these laws, and if so, to what extent!

The vital principle modifies these chemical compounds, and changes them from the combinations they would form, in a limited degree; but still they are, in a measure, subject to the same chemical laws and modifications *internally*, and subject to the vital principle, as they are externally, without any connection with this mysterious influence. I regard vitality as exerting a powerful but not omnipotent influence, in preventing the chemical decomposition, or foreign introduction of injurious compounds into the humors of the body.

The original cause of consumption has long baffled the researches of the most learned physicians; and the most efficient remedies have as yet failed in perfecting a cure, where

the disease has once obtained a chronic form. Were we acquainted with the original cause of the complaint, the axe might be applied to the root of this fell disease, and instead of palliations we might arrive at extirpations, instead of antiseptics to heal the diseased lungs, and tonics to impart artificial strength, we might correct the *disposition* to the deposition of tuberculous matter, and impart real and natural strength. I propose, therefore, to make a slight pathological inquiry into the probable cause of the disease, basing my inferrences upon certain facts and chemical truths; and if I should be the humble instrument of throwing the least glimmering of light upon the hitherto inscrutable darkness that has enveloped this scourge of the beautiful and holy-minded victims, I shall consider myself amply rewarded.

Whatever vitality may be, there can be no question but that its existence is dependent upon food and upon the oxygen of the air. The union of these elements in the system produces heat, and a deprivation of either causes death. Of the importance to the system of a sufficient quantity of food, it is unnecessary for me to speak; it is obvious to every one; but if an insufficiency of oxygen gas is absorbed, its results are not so immediately obvious, but the consequences are no less detrimental. According to Liebig, the amount of food consumed must be proportionate to the amount of oxygen respired in order that health might continue. Hence, we see the Laplanders, where from the condensation of the atmosphere, the oxygen of the air is presented to the lungs in large and compact volumes, consume great quantities of train oil, while beneath the torrid zone, where the atmosphere is highly rarified and diffused, the chief food of the inhabitants is the fruits that a divine Providence has so bountifully supplied them with. Now, I am under the impression, that tubercular consumption is engendered from a physical deficiency in the absorbents of oxygen, and shall proceed to give my reasons for my belief.

The office of the oxygen respired, appears to be to furnish the bases of the gastric juice, and the other acids necessary for the functions of life, to engender animal heat by its union with the carbon of the food, and finally *to expel the carbon so united with it from the system through the lungs.* If this carbon, or a portion of it, remains in the blood unexpelled, owing to a deficiency of oxygen *to gasify* it, (if I may be allowed the expression,) what would be the results? Would not nature endeavor to throw it off through the alvine passa-

ges, (colliquial diarrhœa)? Would not this constant effort of nature produce fever? Would not the carbon be likely to deposit throughout the system in an albuminous form, and what are tubercles but albuminous deposits? Every consumptive patient feels the vital importance of a highly oxygenated atmosphere—the cool bracing atmosphere of the country—and he likewise experiences a change for the worse when the air becomes contaminated with watery vapors or other gases. M. Chaptal, in speaking of the benefits of the oxygen gas—or vital air as he styles it, as applied to phthisical disorders, remarks as follows:

"I have, myself, been witness to the most wonderful effects of this air in phthisical complaints. M. De B., was in the last stage of confirmed phthisis. Extreme weakness, profuse sweats, a flux of the belly, and in short every symptom announced the approach of death. One of my friends, M. DeP., put him on a course of vital air. The patient respired it with delight, and asked for it with all the eagerness of an infant at the breast. During the time he respired it, he felt a comfortable heat, which distributed itself through all his limbs. This strength increased with the greatest rapidity, and in six weeks he was able to take long walks. This state of health lasted for six months, but after this interval, he relapsed, and being no longer able to have recourse to the use of vital air, because M. DeP. had departed for Paris, he died. I am very far from being of the opinion that the respiration of vital air ought to be considered a specific in cases of this nature. I am even in doubt whether this powerful air is perfectly adapted to such circumstances. But it inspires cheerfulness, renders the patient happy, and in desperate cases it is most certainly a most precious remedy, which can spread flowers upon the borders of the tomb, and prepare us in the gentlest manner for the last dreadful effort of nature."

From the above remarks of M. Chaptal, it will be observed, that as long as the patient respired the oxygen, or "vital" atmosphere, he experienced an entire revolution of feeling; all the phenomena of the disease disappeared, and the patient was restored to temporary health. But as soon as the artificial supply of oxygen was dispensed with, and the patient was left to the powers of absorption contained in his blood, he relapsed. A strong collateral evidence to my mind, that the disease is engendered by a want of absorbing a sufficiency of this vital principle, and a consequent deficiency of animal heat, and expulsion of carbon, thereby allowing it to de-

posit in a tubercular form throughout the system. The absorbents of oxygen, are, in my opinion, the red globules of the blood, the component parts of which are iron, sulphur, and phosphorus; three elements which singly have a powerful affinity for oxygen, and which, united, must form a still more powerful attraction for it. According to the analysis of the blood of different animals, (*vide Both Ency. caption "Blood,"*) it will be observed, that the blood of birds contains from 15 to sixteen parts blood globules in 100, while fish and frogs ranges between 4.81 to 6.90 in 100. in other words the hotter blooded the nature of the animal, and the greater amount of oxygen required for purposes of respiration, the larger is the proportion of these oxygen "carriers"—as Liebig aptly denominates them. According to the same author, it will be observed, that the blood of a person in good health contains 791.900 water, 208.100 solid residue, 2.011 fibrin, 1.978 fat, 75.590 albumen, 105.165 hematin, 7.181 globulin, 14.174 ext. salts; while with persons afflicted with pneumonia and phthisis, we see an increase of the water and albumen, and a large deficiency averaging more than one half of the hematin and globulin. Now, does not the deficiency of the hemati-globulin afford us a ready solution for the increase of the albumen and water? for if a less quantity of oxygen is absorbed, a proportionate deficiency of albumen in the form of carbonic acid would be evolved; and would not the globules, if more abundant, decompose the superfluous water, by seizing its oxygen, and allowing the hydrogen to escape?

Let us look at some of the phenomena of the disease, and see how they accord with the foregoing remarks. *First.* Tubercles are rarely, if ever, found in the lungs of the fœtus. Does not this deduce the inference that parents do not transmit *diseased lungs* to their offspring, but only *a certain disposition of some of the humors of the system, to engender a disease of the lungs.* This disposition rarely exhibits itself until the child is born into the world, and commences a separate existence of its own. As long as the mother supplies the organs of respiration, and renovates the blood for her unborn child, tubercles are rarely formed; and if the truth was properly investigated, I feel confident that where tubercles are found in the lungs of an unborn child, *it will be found to inherit the disease from the mother*, and *not from the father.* This is to my mind an important conclusion, to which I would call the attention of pathologists. Admitting these facts, do they not clearly demonstrate that as long as the blood

of the fœtus is properly renovated by throwing off through the lungs of the mother the superfluous albumen, *albuminous deposites* (tubercles) are not formed, but as soon as the child *commences a vitality of its own*, from an innate deficiency of the absorbents of oxygen, *inherited from the father*, the carbon is not sufficiently expelled, and consequently deposits in a tubercular form. In other words, I consider a tubercled lung as *not the primary cause*, but the *consequence* of the disease.

Second. Consumption rarely develops itself until the patient has arrived at the age of puberty. While the child is expanding to the full grown human being, the carbon is wanted, and is extracted from the blood to promote the growth of the patient, and does not consequently remain in the circulation as a poison; and it is only on the cessation of this natural deposition, and when it is necessary to expel the carbon by means of its union with oxygen, that the disease takes its more fatal form.

Third. Pregnancy operates as a stay of the disease. The doctrine of classing pregnancy as a disease, and accounting for this phenomenon by the law that "no two diseases can exist at the same time in the human system," does not, to my mind, afford so clear a solution as the facts—*first:* that tubercles are "albuminous deposits;" *second:* "that the blood of women during pregnancy, is found to contain but a small proportion of albumen," it being supposed that a portion of the albumen is extracted therefrom to feed and promote the growth of the fœtus. As long, therefore, as the albumen is thus extracted, the consumptive mother is benefitted; but as soon as the blood is left to renovate itself, by means of its absorption of oxygen, and the consequent expulsion of carbonic acid, the deficiency of the hemati-globulin causes the patient to relapse. It is claimed by several standard authorities, that consumption can be successfully warded off for a series of years, by a succession of pregnancies; *fourth:* fever and ague is said to exercise a beneficial influence over consumption. This is another of the mysterious phenomena of the disease, for which no satisfactory account has been given. Let us see how it accords with the views which I have suggested. Fever and ague is induced from some peculiar state of the atmosphere, which, acting upon the liver, causes a larger than ordinary quantity of bile to be secreted. Consumption is generally confined to sanguine temperaments, and not to the bilious. Now, I would account for

these facts, by suggesting, that as the bile is extracted from the blood, and as it contains a large quantity of albumen, it seems reasonable to infer, that when there is a disposition to secrete a larger than usual quantity of bile, the blood must proportionately be freed from its superabundance of carbon.

In regard to the proper method of treating the disease, I would leave that to more experienced minds than my own, but would merely suggest, that if the facts already adduced, bear me out in my views that the disease is engendered by a deficiency of the hemati-globulin of the blood, artificial means should be resorted to if possible, to supply that deficiency. Antiseptics would undoubtedly be valuable to correct the diseased state of the organs, while if the liver was acted upon to cause the secretion of a larger quantity of bile, it might prove efficacious; but the eradication of the disease must depend upon *the blood being restored to its proper self-oxygenating powers.* I will merely append a statement of the treatment of a patient in a case of consumption, as laid down in Dr. Good's study of medicine, volume II, page 60. "The aceotus acid was employed freely by Galen—diluted with water, who regarded it as the best refrigerant we can select. It is continued to the present day among the Moorish physicians at Tunis, and according to the late M. Orban with decided success. He observed its effects, during three months upon one patient, who appeared to be laboring under a confirmed phthisis from a neglected catarrh. The quantity of vinegar drank in the course of every twenty-four hours, was seven fluid ounces, intermixed with seven times as much rain water, and sweetened with two ounces of refined sugar. This apozem was accompanied with astringent and tonic pills, compounded chiefly of alum and *sulphate of iron*, (*sulphur* and *iron*, two of the constituents of the hemati-globulin,) of each of which two grains and a half were taken daily. The diet allowed was very slender, and consisted of nothing more than vermicelli or millet, boiled in water, and seasoned with a little oil and salt. Of this, only two meals in the four-and-twenty hours were allowed for several weeks. And *on the patient's becoming very costive* under its use, the Moorish physician paid no attention to the symptom, but told M. Orban, that *a constipated state of the bowels was the best symptom that could occur*, and that the more strikingly this prevailed, *the more certain he was of a cure.* M. Orban left his patient in a state of convalescence, bordering on perfect health; and on his return to France, pursued the same

plan—*with the exception of the iron*, which he omited as too stimulant, and found it in many cases eminently successful, though not in all. It has since been tried in our own country, and has often proved equally advantageous."

Now, the rationale of the above treatment, appears to me, to be *first:* to palliate by the antiseptic properties of the vinegar, alum, and sulphate of iron; *second:* to invigorate by means of the tonic properties of the iron and alum; *third:* to diminish the quantity of albumin in the blood, by a light and scanty diet, and finally, *to replace in the blood the deficient hemati-globulin.* And the only partial success of M. Orban, may reasonably be attributed to his having left out the most important remedy—iron. I would not have it inferred, that I consider the sulphate the form best adapted in this disease, or in fact as suggesting any form; but I am firmly under the impression, that if sulphur, phosphorus, and iron, can be so prepared as to enter into the blood and increase its hematiglobulin, that a cure would be effected.

P. S. I would enquire whether the constipation referred to in the above case, and regarded as so favorable a symptom by the Moorish physician, was not due to the effects of the sulphate of iron and the meagreness of the diet. If I mistake not, sulphate of iron is regarded as a very valuable remedy in all cases of diarrhœa.

Correspondence.

PARIS, March, 1854.

Editors Western Lancet:

Believing that a word or two on the organization of the hospitals and medical staff of this great center of medicine may not be uninteresting to your readers, I have thought it best to devote this letter to a very brief and hasty description.

The number of hospitals, general and special, is more than thirty. They are all under the control of a body called "Administration des hospices civile, et des secours a domicile de la ville de Paris," or administration of hospitals, and assistance of the city of Paris. In addition to these, the government has provided hospitals for the army, which are reserved exclusively for this portion of the population: and here I may say that these latter can not be surpassed in comfort and appointments. There is no city in the world where the wants

of the sick poor are so well provided for. Charity here is not confined to citizens, but is equally extended to the stranger, no matter of what nation or color he may be. The administration of the hospitals is very rich. It is allowed six millions of franks from the government, and in addition receives six more from the tariff paid at the gates of Paris on all kinds of products entering the city. Still more, it has the interest of three hundred thousand francs of bequests, which have been left, at different times, by deceased persons. This administration is composed of the very best men. The profession is largely represented in it. One of the great and admirable traits in the French government is, that it always places the best men in power for the management of everything that concerns the hygienic welfare of its people. Under the administration is organized what is called the "BureauCentrale," or Central Body, whose duties are as follows: All persons who are sick, and whose condition does not demand immediate attention, are taken, or apply to the Bureau Centrale, where a corps of physicians and surgeons is in waiting at certain hours every day. These physicians and surgeons examine and decide the nature of the disease, and the hospital to which the patient shall go. If the case is trivial, the patient is treated at the Bureau Centrale, where some few beds are kept for such cases. It decides, also, on the incurability of those who desire to enter the hospitals for the incurable. It gives trusses, wooden legs, catheters, &c., to those whom the physicians or surgeons may decide upon. In addition to this, it has certain days on which operations for club-foot are performed, certain others for diseases of the eyes, &c., &c. In all cases, however, where the disease is a grave one, the patient is sent to some one of the hospitals. The physicians and surgeons of the Bureau Centrale are appointed by *concours*. The jury is appointed by the administration, and is composed of the physicians and surgeons of the hospitals. The appointment and action of these juries is regulated by very severe laws. For instance, a relative of any one of the concourrents can not serve on the juries. A concourrent may object to any member of the jury whom he may believe will not do him justice, or, in other words, treat him impartially. To keep the medical staff of the hospitals and that of the *Bureau Centrale* full, the administration orders and appoints from one to two juries yearly—one for medicine and one for surgery. Notice is given when the concours will be held. All citizens of France, and graduates of any of its schools, are free to en-

ter the concours. The examination is very rigid, minute, and protracted. It consists of oral, written, and clinical examinations. The persons who succeed, or who are decided to be the best qualified, are reported to the administration of the hospitals, and are confirmed as physicians or surgeons, as the case may be, to the *Bureau Centrale.* They attend the Bureau, and fulfill the duties already named. During the sickness of a physician or surgeon of any one of the hospitals, one of the physicians or surgeons of the Bureau Centrale is appointed to fill his place until he recovers. When a death takes place in the staff of the hospitals, the oldest physician or surgeon of the Bureau Centrale is appointed by the administration to fill the place. I here ought to say that the hospitals are graded in rank and honor. Hotel Dieu, for example, occupies the first place, and after it, La Charite, and then La Pitie, Beajou, and so on. In case of a death, several changes take place, provided the surgeons or physicians wish it. At present, M. Velpeau is entitled, by rank and age, to M. Roux's place; but as he has made the greater part of his reputation at La Charite, and as La Charite is almost as distinguished now for its past and present medical and surgical corps, he will not change. If M. Joubert is appointed to the place of the late M. Roux, the oldest surgeon of the Bureau Centrale will replace some one who will take M. Joubert's place.

It is not considered a disgrace to be defeated in the concours. Two gentlemen have recently succeeded, who failed six times. The concours are composed of those who have been first *externes*, and afterwards *internes*, in the different hospitals, for four or six years. After leaving the hospitals, they do nothing but prepare for the *concours*, knowing that unless they succeed in the *concours*, that no field is offered for practice or distinction. Indeed, I am assured by several gentlemen who intend to *concours* for the Bureau Centrale, that they expect to do nothing in the way of practice, until they have passed the *concours*, and have received the appointment to a service in one of the hospitals. You and your readers will say, then, that it is the hospitals of Paris which develop the great men here. This is true. Let us have at home the same system, and it would not be many years until we would have as many attrations for the scientific world as are to be found here.

The great advantages of the concours are, that it makes better physicians. It has great abuses, which are openly acknowledged. Favor and partiality influence the opinions of he jury too often.

Since the proclamation of the Empire, the concours for professorship has been abolished. The Emperor retains the right to appoint whom he may please. For all the other places, however, the concours is the only means of success.

The appointments of the hospitals are in the main all that could be wished. Amphitheaters are fitted up in all of them for clinical lectures. Post mortem examinations are seldom objected to. Indeed, everything in and about them is subservient to scientific purposes. Every one who dies in the hospitals, and does not leave six dollars to pay his funeral expenses, is sent, during the winter and spring, either to the great dissecting rooms of Clamart, or to the smaller one of École Practique. In one word, the physicians and surgeons of the hospitals are "lords of all they survey;" their opinion is the "higher law."

First, then, of Hotel Dieu, as it is considered to rank first. As surgeons, since the death of M. Roux, there are M. Joubert de Lambath and Boyer. The physicians are Rostan, Trousseau, Grisolle, Requin, Sandras. M. Roux's place is filled temporarily by Richet. Of M. Joubert, I wrote something in my last; but as it is almost certain that he will receive the appointmeut of Professor of Clinical Surgery, in place of M. Roux, a word here may not be out of place. You know he has made his reputation in operating for vesico-vaginal fistula, and in the application of the *fer rouge* to diseased states of the os and neck of the uterus. In regard to the former operation, you know his published success is greater than that of any other surgeon living. He claims his operation as original; it is, however, not his, but only a modification or improvement made by him. I am assured by some gentlemen high in place, that if his unsuccessful cases were published, the result would be anything but flattering to him, or pleasant to the medical world or humanity. As for his application of the *fer rouge*, the same may be said. I have followed him for some time, and have seen him apply it very often, and I can not but think, that he uses it too indiscriminately. In simple ulceration and engorgement of the os and neck, he applies it with success; but when simpler caustics can be used with like success, I can not understand the propriety of the potential cautery. There is no doubt, that women suffering with malignant diseases of the os and neck of the uterus, accompanied with wasting hemorrhages and great pain, are sometimes relieved by the *fer rouge*; but, on the other hand, I have seen cases in his service, which

seemed to progress faster under its influence. He maintains, you may know that the neck and os uteri are without nerves, and for this reason uses the *fer rogue* with impunity.

He is a very rough, uncouth man in his intercourse with his patients. On his days for the application of the cautery, the women are taken into a small room before the class, exposed entirely, and their limbs supported by two aids. He applies the cautery at a red heat, generally, and immediately afterwards throws into the speculum a pint of cold water. He makes use of an ivory or wooden speculum, as they are bad conductors of heat. In general, the women do not complain of pain from the application of the cautery. He is very unpopular with the profession. Indeed, his unpopularity amounts to dislike. There is no way to avoid his appointment to the chair of the late M. Roux. Being first surgeon of the Emperor, his influence is above and superior to that of the combined profession, including the faculty. As a pathologist and a clinical lecturer, he is by no means strong. Much chagrin is felt, that he should succeed such men as Dupuytren and Roux. The mode of proceeding in filling a vacant professorship at present, is as follows: The faculty nominate three candidates, the Institute of France three and the Imperial Academy of Medicine three. Generally, the man who is the choice of all, is named first; but in the case of Joubert, no such rule will be followed. The Emperor chooses from the list and appoints.

You know, I suppose, that there are two clinical professors of medicine—Rostan and Trousseau—at Hotel Dieu, and one of surgery. At La Charite, there are also two—M. Bouilland and Piorry of medicine, and M. Velpeau of surgery. At La Pitie, M. Langier is professor of clinical surgery, and M. Nelatou at the clinique of the faculte. All these places were formerly subject to the *concours*, but at present are filled by the Emperor. As a surgeon, M. Joubert is no favorite of mine.

The clinical lecturers of this hospital, as I have said before, are M. Rostan and Trousseau; the former lecturing during the winter session, and the latter during the summer. Rostan is distinguished for his diagnosis of the diseases of the brain. He is about sixty years of age, of a full habit, quick and active in his movements. He is a great talker, and is followed by a large class. The major part of his lectures during the winter, were taken up with the diseases of the brain. As a lecturer, I must say I do not like him. In his

examinations of patients, he is clear, minute and careful. His style, however, is rambling, not confining himself to the main point before him. Of M. Trousseau, I can speak in high terms. He is, excepting M. Barth and Valleix, the only therapeutist here. Of all the professors, however, he is the only therapeutist. Judging from his appearance, he is some fifty-five years of age, though he would pass for a man of forty-five. He is of the average size, of pleasant and agreeable address. He speaks English with great fluency, and is very cordial in his reception of Americans, He was formerly professor of materia medica in the school, and one of the physicians at the Children's Hospital. M. Chomel having resigned his chair, at Hotel Dieu, M. Trousseau was appointed. He made much reputation while at the Childrens' Hospital, for his successful operations for tracheotomy. As professor in the school, he was very popular, his lectures always being well attended. The same is true of his clinical lectures now. He makes his visit at 7½ A. M., and lectures from 9 until 10 A. M. He is very clear in his examinations of patients, and prescribes medicine as if he had full confidence in its power to cure. Indeed, his system of practice is different from all the other professors here, resembling the sound American and English. He has some species of practice and some theories peculiar to himself, which the profession do not subscribe to.

The limits of this letter do not allow me to give you even brief notes of his lectures which interested me. In conjunction with M. Pidoux, he wrote a book on materia medica and therapeutics, which is a most admirable addition to the literature of this part of the science. He still continues to contribute very interesting papers to the different medical journals. I can assure all who purpose visiting this city, that they will be highly pleased with M. Trousseau. Of the other physicians of Hotel Dieu I have but little to say. M. Grisolle and Requin are professors in the school; the former occupying the chair of materia medica. Hotel Dieu has about eight hundred beds; one ward is retained for lying-in-women. Its situation is the most interesting of all the hospitals, and hence the great mortality which occurs within it.

The consultations for out-door patients are held every day —Sabbath excepted—by one of the physicians and surgeons. They are very largely attended.

The next hospital which an American inquires for, is La Charite. In it may be seen, every morning, at 8 o'clock,

men whose reputation is world-wide—whose names are oftener used as authority than probably any others on the continent. I mean Velpeau, Andral, and Bouilland. In addition to these may be seen Cruveilhier, Rayer, Piorry, and Briquet. Let me then give you a faint idea of each of these men. I am sorry I am not a better word painter, or in other language, that my style of description is not of higher order; for I know the desire generally prevalent with all to understand the appearance, character, &c., of great men. First, then, of M. Velpeau. Your readers, I suppose, are well acquainted with his early history. A son of poverty, he came to Paris, without education and friends, and has risen, by the dint of talent and labor, to be now one of the greatest, if not the greatest living surgeon. He occupies the place formerly held by the great Boyer. Velpeau is, I believe, sixty-five years of age, straight and firm in his walk, with a good eye, a steady hand, and appearing, as he has I doubt not great powers of endurance yet. He does not present the air and look of an old man. He works very hard still, as he spends two hours in the hospital every morning, attends to a large practice, and studies. He is writing another book, the subject of which I have not learned. His face is what may be called hard, not seeming to have much social sympathy. I must say my expectations of him have been a little disappointed. In his wards he is surrounded by a large number of veterens, who are greatly devoted to him. They crowd round the bed of the patient, so that it is with great difficulty one can get near enough to hear the few remarks he makes. He never gives a diagnosis at the bed side. His oral examinations are worthless; his questions being but few and brief. He likes to let off a witty remark at the patients, and the students, and servants; and permits no occasion to go by without doing so.

It would be a great benefit if the diagnosis of the disease was written on the card posted at the foot of the bed; in that case one might learn something. He follows the course pursued in all the hospitals, of not keeping a history of the cases in his service for general use. He has one or two of the *externes* to make notes of cases, the diseases of which he may be studying. As for his style and manner of lecturing, I can not say that it pleases me. He always begins by referring to the admission and discharge of patients since the last visit. Occasionally he devotes the entire hour to some one subject, but generally delivers brief remarks on the most in-

terestiug cases. Great as he is, and as large as his experience is in surgical practice, he sometimes makes very great errors in diagnosis. I have seen some six or seven such cases, which if occurring to almost any man in our country, would certainly damage his reputation. I have not time to give you a minute of these cases, but will reserve them for some future letter. He has been waging war on the microscopists for several years, and still continues it severely. He laughs at the doctrines of the micrographs on cancer, and in his book on the diseases of the female breast, presents, as he believes, a strong and convincing argument against them. He is a believer also in the doctrines of the St. Louis school, as they are called, on syphilis. He gives battle to M. Ricord, on every occasion, with all his force and sarcasm, the latter of which he possesses largely; but always comes off, I think, badly wounded. In the debates in the Academy of Medicine, he seems always prepared, showing an intimate acquaintance with the whole subject. His style of speaking is what may be called the conversational. He has a correct appreciation of American medicine and surgery, and always gives credit at the proper time for all we deserve. This is praiseworthy, for I am inclined to believe that he is an exception in this respect. He is generally punctual in his visit at 8 A. M., and lectures every day—Thursdays and Sundays excepted. He calls the roll of his *externes* as soon as he enters his wards, and those who are absent a certain number of times are dismissed. Since my stay here, I think he has operated oftener for cancer of the breast, than any other three surgeons. However, it is at his request that the Bureau Centrale sends him a large number of patients with this affection. This is another one of the excellent arrangements which exist here. If any physician or surgeon announces to the Bureau Centrale, that he desires to study or investigate a certain disease, he receives as many cases as his wards can accommodate, without occupying them exclusively. Indeed, I can not speak in too high terms of the large, liberal, and truly scientific views evinced by the government in its management of the hospitals, and its behavior to its medical staff.

M. Gerdy, is the second surgeon of La Charite, but as his health is bad, his place is filled by M. Giraldes, an agrege of the faculty. But let me say something of the physicians, whose reputation is so great at home with us. M. Bouillaud and M. Piorry are professors of clinical medicine. Bouillaud looks to be about fifty, but is older. He has the air of one

whose health is bad, which is the fact. He is suffering from an affection of the liver. Of a pleasant, but sad expression of face, bordering on hypochondriacal; he looks like one who worked from habit and not from pleasure. His service and lectures are thinly attended, owing to the fact, that his ill health has had such an effect on him, as to take away much of his former charm. I have heard him very often during the winter, and with but few exceptions, he devoted a large part of his lectures in lamenting the utter ignorance of the profession of diseases of the heart. Indeed, in his last lecture he said, that there were not two men in Paris who could diagnose the diseases of the heart.

In his examinations, he is very close and careful. His service always contains several interesting cases of the disease of the heart. You know his reputation for bleeding; his practice at present does not at all tend to diminish it.

Of M. Piorry, I have but little to say in addition to what I said in a previous letter. He lectures during the Summer session. He is quite sixty, but looks like a man of forty-five, as he wears a black wig, and a large pair of dark whiskers. He understands auscultation and percussion; but so much of a hobby has he made of them, that he is neither interesting or instructive. As to confidence in many of the diagnoses which he makes, I have but little.

According to some, the first medical philosopher of France, now living, is M. Andral. At any rate, he sits side by side with Louis. His service at La Charite is as large as that of each of the others, numbering some one hundred beds. The foreigner who has read his great work, and has heard much of him, will suffer great disappointment on following him through his wards. He is always late—seldom arriving before 9 A. M. He then almost runs from bed to bed, without ever making a clinical remark. His examinations are, as a matter of course, very hurried. He finishes his visit very soon, leaves, and comes back the next day, and goes through the same course. He has a very amiable, intellectual face, gray hair, slightly stooped in his walk, and is on the shady side of sixty. His course of lectures in the school have been devoted to the early history of medicine. Like all the other professors, he sits when he lectures, and has very copious notes, of which he makes free use. He speaks in a low tone, and the few who attend him, are forced to sit on the front seats in the immense amphitheater. One half of his lecture is lost to those who wish to hear it, from the

fact, that the students begin to enter when he is half through—to get the best seats—either for Mulgaine's or Denonvillier's lectures, who follow him on alternate days. Your readers are familiar with his works. He will put to press his lectures on the history of medicine in a short time.

M. Cruveilhier, professor of Pathological Anatomy, has a service quite as large as that of Andral. He is a small, thick set man, approaching in age M. Andral. He is very quick and nervous, and seems to act as if he was not doing enough. His visits are hurried, but not so much so as those of Andral. He devotes more time to examinations, and occasionally makes some remarks on cases. Like Andral, he is not followed by students. He occupies the chair founded by Dupuytren, and is the author of a fine work on pathological anatomy. He delivers his course during the summer in the school.

M. Rayer is one of the finest looking men in the profession. He is over six feet in hight, and is developed in proportion. You know that he occupies a position, justly distinguished for his great work on the skin and kidney. A professorship has been offered him of late, which he declined. Although not very profitable or instructive to follow—so far as clinical remarks are concerned—one may, nevertheless, learn much of abnormal states of the urine, and of diseases of the lungs and heart from him. He examines the urine of every patient in his ward, as a general rule. Being a fine microscopist, he also subjects the urine to its examination. As a therapeautist, he is like all those I have just named—pursuing the *medicine expectant treatment*. He trusts in diagnosis, very much to his *interne*, who is, as a general rule, the best one, as he chooses the service of M. Rayer as a right given those who receive the gold medal at the end of four years' service in the hospital. He has the right, also, to remain two years longer (six years in all) than any other one.

Rayer occupies a very high position here in the profession and scientific world. He is a great student, old as he is, and devotes his time to the study of natural sciences very much. I would advise all to follow him, as either from him or his *interne*, opportunities for examining interesting cases will always be afforded. In no other service can be seen so well the progress of diabetes and albuminaria as in his.

M. Brequet's service is quite large. He is an agregi of the faculty, and has made his reputation for his treatment of nervous diseases. He has in his wards quite a number of

cases of disease of this class of a very interesting character. He is careful and minute in his examinations, and speaks slow and distinct. For the person whose knowledge of French is deficient, on his arrival here, I would advise attendance on Brequet's service, in addition to the medical interest he presents.

La Charite is one of the best hospitals here. Its wards are large and well ventilated. The average of mortality is less than that of the majority of the other hospitals It has beds for near six hundred patients. Like all the others, the daily consultations for out-door patients are very large.

La Pities occupies, in importance and rank, the next position after La Charite. Situated near the Garden of Plants, and containing several large and fine courts, it is surrounded by air comparatively fresh and pure. It has accommodations for over six hundred patients. The physicians at present in service, are MM. Serres, Valleix, Nonat, Gendrin, and Gueneau de Mussy. M. Lawgier and Mechon are the surgeons, the former being clinical professor of the faculty. He never lectures, as he never has any students but the *externes* of his service.

M. Michon delivers a free course during the winter to a large attendance. He is an excellent surgeon, with a fine knowledge of pathology and diagnosis.

M. Valleix is followed very much by both French and foreign students. He has modified the redresser and sound of Simpson, and has been very successful in the treatment of uterine deviations. He is a small man, very robust and stout. He is one of the best therapeautists here, and for those who have not seen practice, and who desire to study diagnosis, I think his service is one of the best, if not the very best. His lectures are full, minute, and complete. He is the most careful man here in his examinations of patients. His service is, however, more distinguished for the number of uterine deviations it constantly contains, than for anything else.

The second edition of his book, in five volumes, on the practice of medicine, has been before the profession for three months. It is much liked, and has met with a large sale. M. Gendrin delivers a free course during the winter. The amphitheater is generally well filled; his service generally contains a considerable number of cases of diseases of the heart, of the diagnosis of which he has a good reputation. M. Nonat, also, delivers a free course during the winter. He has lectured on abdominal tumors and periuterine abscess during the past winter.

This hospital is situated at a considerable distance from the lodgings of most of our countrymen, but will repay all who visit it daily, or occasionally.

Beaujon is one of the best situated hospitals here, being at the extreme end of Faubourg St. Honore, on one of the highest points of ground in the city. It accommodates near five hundred patients. The mortality is very small. It is entirely free from the usual odor which pervades the wards of almost all the other hospitals. The grounds attached to it are also much larger. The current of air which is constantly blowing over it, renders it one of the best and most healthy hospitals. M. Huguier and Robert are the surgeons, while M. Barth, Tesseir, and Boulard are the physicians. The reputation of M. Barth, in the diagnosis of diseases of the chest, is well known to all of your readers, I think. He is tall, stooped in his walk, of an intellectual, quiet, and modest face. I have been as much, if not more, interested in his service than that of any one here. He does not, as you are probably aware, give a course of clinical lectures. At the bed-side, however, of each patient, he states the diagnosis, prognosis, and treatment, and frequently delivers some few remarks of much practical importance. He has but very few following him, owing to the fact, that the hospital is quite two miles and a half from the "Latin quarter." After auscultating a case, he calls up any stranger who may be present, and asks him to examine it, pointing out the regions of the chest where abnormal sounds are to be heard. His wards are filled principally with thoracic diseases. Those who desire to study this interesting classof diseases, will have a field in the wards of M. Barth, and should by all means profit by it while here. He is more courteous in his wards than any one else here I think, and will explain any point in the case or its treatment that may be desired. He is the author, with M. Roget, of a work on auscultation, the value of which you fully appreciate. He was elected a member of the committee on pathalogical anatomy, of the academy of medicine at one of its meetings a short time ago. His health is by no means good, and he told me that in consequence, he had been forced to leave off his pathological studies.

Of the other physicians I cannot say much, as I have been but a single time in their wards.

M. Tessier, you may know, is the homœopathist, of whose wonderful success so much was said some few years ago. The surgical services of Huguier and Robert, will repay those

who will carefully attend them. In Huguier's service, especially, many interesting cases of uterine disease can be seen, with the results of treatment—a brief account of which I gave you in my last.

[CONCLUDED NEXT MONTH.]

Reviews and Notices.

The Pathology and Treatment of Pulmonary Tuberculosis; and on the local Medication of Pharyngeal Diseases frequently mistaken for, or associated with, Phthisis. By JOHN HUGHES BENNETT, M. D., F. R. S. E., &c. Philadelphia: Blanchard & Lee; 1854; pp. 130.

The reputation of Dr. Bennet as a pathologist and practitioner is well known throughout the world, and from such a source we must expect much on any subject to which attention may be directed. The present treatise does not contain much that is strictly new, for the author's views have been previously published. He gives an accurate account of the histology of tubercle, the changes which the deposits undergo, and the *nature* of the product. On the nature of the disease, the author is not very full, nor his views well developed, although, as far as he goes, the disease is ascribed to mal-assimilation.

In the treatment, the author relies mainly on the cod liver oil, and nutritious diet, and all agents which improve assimilation, except when acute symptoms exist, which are to be combatted by antimony, in small doses, and diuretics.

Dr. Bennet's treatise is brief but pointed, and will constitute a valuable integral in the history and treatment of tuberculosis.

For sale by Moore, Wilstach & Keys.

A Clinical Introduction to the practice of Auscultation, and other modes of Physical Diagnosis, in Diseases of the Lungs and Heart. By H. M. HUGHES, M. D., Fellow of the Royal College of Physicians, Assistant Physician to Guy's Hospital, etc. Second American, from the second and revised English edition. Philadelphia: Blanchard & Lee. 1854; 12mo. pp. 304.

Dr. Hughes is evidently a practical auscultator, and he has produced a treatise of considerable merit. We can not assent

some of the views expressed by the author, but in the main, he is orthodox, and presents his subjects in a clear and perspicuous manner. It is a good manual for those wishing to acquire a knowledge of auscultation.

For sale by H. W. Derby & Co.

Progress of Medicine.

ENGLAND.

On Gallic Acid in the Hemorrhagic Diathesis and Diseases characterized by Relaxed Fibre or Excessive Secretion. By W. Bays, M. D., Physician to the Brighton Dispensary.

(Read before the Medico-Chirurgical Society of Brighton and Sussex.)

The few remarks which I bring under your consideration this evening relate to a therapeutic agent, whose value has hitherto, as I believe, been insufficiently appreciated by the profession at large.

In those works upon materia medica to which I have had access, gallic acid is chiefly lauded for its admirable power in arresting hemorrhages; but even in these fluxes the mineral astringents are, as yet, held in more general estimation by the main body of the profession—a preference which I do not think would be maintained were their relative merits better understood. Long prevailing practice indeed favors the exhibition of the mineral astringents in the treatment of hemorrhage, but safety and convenience in administration, as well as greater certainty in effect, will certainly be found in gallic acid. In it we have not only a powerful but a perfectly safe astringent, an advantage of no mean value over lead and other minerals, since from the poisonous nature of these, their employment must be restricted; gallic acid, on the other hand, may be given in continually repeated and increasing doses, only limited in their quantity and frequency by the removal of the necessity which called for their exhibition.

The truth of this proposition was well demonstrated in the case of hæmoptysis, reported by me in the *Provincial Med. and Sur. Jour.*, of Sept. 29, 1852, In this case, I gave a drachm of the acid in less than two hours, (in five-grain do-

ses) and during the succeediug twenty-four hours another drachm was taken, with no distress or evil consequences of any kind, either then or subsequently, to the general health. It is no mean advantage to posses an astringent which exercises its own proper power, and at the same time is neither excitant nor irritant, neither sedative nor depressing. Another advantage to be found in gallic acid, is the ease and rapidity with which it enters the blood and saturates the system, whence it is not only to be preferred before minerals, but also before tannic acid.* In the case before alluded to, the bloody sputa became perfectly inky in one hour and forty minutes. That the system was then completely saturated with the remedy was proved by these sputa being perfectly black throughout, not merely tinged or coated with black, as would have been the case had the contact with the remedy taken place only in the mouth and fauces. Simultaneously with this inky appearance, the hæmoptysis ceased. The effect produced upon the pulse was, that it became hard and wiry, and steady in its beat.

The effects of tannic and gallic acid on dead animal tissues are familiar to us in the process of tanning. It contracts and hardens the dead animal tissue. Experiments have also shown, that a saturated solution of gallic acid, mixed with fresh-drawn blood, both quickens coagulation and hardens the clot. Solutions of vegetable astringents thrown into the veins of animals, have produced death through coagulation in the central organ of circulation; and since the astringent power of all vegetables depends upon the amount of tannic and gallic acid contained in them, and since we have seen that gallic acid readily enters the blood, I think we may fairly assume, that, when introduced into the human system, gallic acid acts through its tendency to contract and condense the fibrous tissues, and to coagulate the vital fluids, wherever they have this natural disposition.

Affecting, therefore, as it does both the circulating fluid and its containing vessels, giving an increased proclivity towards contraction in the one, and towards coagulation in the other; this two-fold effect of gallic acid, and the perfect safety with which the largest dose may be administered, should render it our sheet-anchor in hemorrhages, both active

* When tannic acid is administered (Pereira remarks), it becomes changed into gallic acid in its passage through the system; hence, when a remote or general effect is desired, gallic acid is the most proper to be administered. In its topical effect, tannic acid has the greater power

and passive. The ease and rapidity with which it enters the blood, render it equally powerful to arrest hemorrhage throughout the whole body. If the vital stream be oozing in passive flux from relaxed and atonic vessels, it will contract them and steady the circulation; or if a boudning pulse forces an active hemorrhage through the torn walls of some weakened vessel, it will contract this, and form a firm clot around it, reducing the pulse and the heart's action at the same time. * * * * * * * * * *

In the following cases of disease the remedy is worthy of every confidence.

I. In active hemorrhages, from whatever organ or part of the body they proceed.

II. In passive hemorrhages, hemorrhagic diathesis, purpura, &c.

III. In excessive secretions, as in pyrosis, serous diarrhœa, chronic bronchitis, bronchial flux, profuse night-sweats, some forms of dysentery, and perhaps in diabetes.

IV. In atonic states of the alimentary canal and of the body generally, especially in rachitis, and in those cases where a weak and congested state of the capillaries is apparent.

V. As an adjunct to other means in piles, wounds, &c.

I. Where gallic acid is employed in cases of active hemorrhage, it will by no means interfere with the employment of measures of active depletion, should the plethoric state of the patient appear to demand their use. In my own experience I have trusted solely to the gallic acid and the local application of cold, and have not ever been disappointed; but cases may arise where an immediate relief to a gorged system may appear necessary, and here gallic acid will be found the most useful aid to the other means applied. In these cases, the indications point to the introduction of the remedy in such a way as will most rapidly enter the circulation. Time is here of the utmost importance, since life is flowing away rapidly unless the tide be stayed. Therefore, in severe cases, a tablespoonful of a saturated solution of the acid* should be administered every four or five minutes, while with the hand on the pulse we carefully watch its gradual transition from a full though thrilling flow to a wiry hard beat. Then the hemorrhage pours less rapidly, or totally ceases, while its color becomes darker and darker, until it is often perfectly

* Made with hot water and a little spirit, it will contain about five grains.

laky. When this occurs, it shows a complete saturation with the acid, which may then be given at much longer intervals, and after a few days be discontinued. This mode of administration is applicable to active hemorrhages from all organs, except from the œsophagus and stomach. The exception made in these cases is from the consideration that the remedy would probably be vomited with the blood, and so washed out of the organ before it had time to enter the circulation. It will therefore be safer here not to rely on the exhibition of the medicine by the mouth, but to administer it in large quantities *per anum*. I would still, however, advise that freshly made pills, containing the acid, should be swallowed, in the hopes of acting topically upon the bleeding vessels, of coagulating the blood already thrown out, and of allaying the sickness. In uterine hemorrhages, it will also be useful to combine injections of a solution of the tannic or gallic acid with its internal administration; since, where it is possible to act both from within and without, it must obviously be highly serviceable to do so. In this, and in the second division of cases, I feel confident that gallic acid will disappoint no reasonable expectation in its curative powers.

II. In the treatment of passive hemorrhages, much smaller doses of the acid will suffice. It should, however, be fearlessly pushed until the beneficial result is produced. This will generally be *coincident with a feeling of constriction in the forehead and eyes, or with a buzzing sound in the ears and head*; when this occurs, the hemorrhage will be mostly arrested, and by a continuance of the medicine in smaller doses and at longer intervals for a few days after the total cessation of the disease, a relapse will be avoided. In passive and chronic cases, I prefer to give the medicine in the form of pills, since the solution, if kept long, undergoes decomposition.

III. The third division of cases requires some little discrimination in the choice of those to which an astringent method of treatment is applicable. It is obvious, that while in some cases excessive secretion is in itself a diseased action, that in others it is an effort of Nature to cast out some poison or peccant matter circulating in the blood, and therefore curative. We have examples of the former in pyrosis, and of the latter in the sweats of rheumatism, in the diarrhœa which precedes erysipelas, and some other disorders, and which proves critical in some fevers. Still, after rejecting all these as unfit cases for the exhibition of gallic acid, a larg

yet remain, in which excessive secretions result from debility, or a generally relaxed state of their natural organs, or of the capillaries of the parts whence they are excreted. Where this obtains, there is certainly no remedy which acts more pleasantly and admirably than gallic acid, giving, as it does, general tone and vigor without the slightest tendency to induce febrile excitement. In pyrosis, where this disease is unaccompanied by extensive ulceration, or organic malignant disease of the stomach, or by disease of the liver, the most marked benefit will follow the use of the remedy. Gallic acid, here, not only checks the secretion with a certainty and rapidity I have never seen follow the administration of any other remedy, but it gives general tone to the stomach, increases the appetite, and (what I very little expected when I first used it) in many cases removes constipation. * *

Ovarian Cyst cured by the Tincture of Iodine administered internally. By. Dr. Ficinus.

Dr. Ficinus is not the first who has attempted to cure ovarian cysts by the tincture of iodine. Such preparations have long been recommended both in England and in France. For some years the employment of the remedy internally has fallen into oblivion, and iodine has been used for the treatment of ovarian cysts by injection only. The danger inseparable from this latter mode of its employment, has deterred the general body of Practitioners from adopting it. The means pursued by the author are not exposed to the same reproach, and we relate his case, without expressing an opinion as to the prospect of others being found equally satisfactory in other hands. Dr. Ficinus was called, in April, 1852, to a woman aged 21 years, married eight months, and supposed to be enceinte. For some days she had experienced severe abdominal pains, such as prevented manual examination of the part. Nevertheless, it was supposed that a distinct fluctuation could be felt over the tumor in the hypogastric region. Upon examination per vaginum, it was ascertained that the neck of the uterus was shortened, as might be the case in the fifth month of utero-gestation. The patient had never felt the movements of the fœtus. This examination, although incomplete, induced Dr. Ficinus to believe in the existence of an ovarian cyst. He ordered diffusion of the leaves of digitalis with nitrate of potass; cupping to the abdomen, followed by mercurial and iodine frictions. Under the influence of

this treatment, the condition of the patient improved, the fever and pain diminished. A fresh examination confirmed the diagnosis of encysted dropsy of the ovary. He then prescribed 25 drops, repeated thrice a day, of equal parts of tincture of iodine, aconite, and digitalis. Ultimately the dose was increased to 35 drops. About the middle of the month of May, the tincture of aconite was replaced by the tinct. lem. colchici. Improvement went on so rapidly, that, by the middle of the month of July, the patient resumed her usual avocations. The abdomen was much reduced in size, but an indolent tumor of inconsiderable volume was still felt at the inferior part of the left hypogastrium.—*Allgemeine Medic. Centr. Zeit.*, March 18, 1854.

Upon the utility of Injections of Iodine into the Cavity of the Peritoneum. By. M. Rodolfi.

In order to appreciate this method, which has become popular by some amount of success, and is gradually acquiring more regular conditions of application, M. Rodolfi, confines himself to five observations, and these are examples both of failure and of death.

Observation 1.—A man, aged 48, the subject of ascites for the last two months, had been twice tapped, and been treated by frictions of different kinds without success. Upon the 8th September, 1852, a third puncture was made, after which the integrity of the viscera was ascertained. There was then injected about three ounces of distilled water, three drachms of tincture of iodine, and forty grains of iodide of potassium, into the abdomen. The fluid did not return. This was followed by febrile re-action for four days, the pulse beating 115. Severe peritonitis, requiring the repeated application of leeches, ensued; and, although the active treatment subdued the urgent symptoms, the patient suffered from diarrhœa and emaciation. On the 19th the ascites were reproduced. Death ensued on Nov. 5.

Necropsy.—There were twelve ounces of fluid in the peritoneal cavity; chronic peritonitis; enlarged mesenteric glands; the portal vein inflamed, and partially obstructed by false membranes.

Observation 2.—A man, aged 32, became ascitic for ten months in consequence of intermittent fevers. Iodine injections were performed July 27, 1852. A moderate amount of inflammatory action ensued. On the 31st, ascitis was again perceptible.

August 15.—A second injection, with the same results. At the end of twenty days there was re-appearance of the fluid, accompanied by rapid emaciation. Death Sept. 17.

Necropsy.—Abundant serous effusion; hypertrophy of the liver and spleen; chronic peritonitis, numerous points of suppuration in the parietal peritoneum; inflammation of the portal, splenic, and mesenteric veins.

Observation 3.—A man, aged 27, scrofulous, the subject of frequent brochitis and obstinate diarrhœa, had suffered from ascites for three months. For two months he had been treated without success by iodine, mercurials, and diuretics. November 1, the first puncture was made, and iodine injected into the peritoneum. Severe pain over the whole abdomen ensued, and leeches were applied. On the 6th the fluid re-appeared, and became the more abundant as the condition of the abdomen was more natural. Dyspnœa, emaciation, and weakness supervened, and he died Nov. 30.

Necropsy.—Twenty pints of serum in the abdomen; arterial injection of the peritoneum; cirrhosis of the mesenteric glands, with several centres of suppuration; a varicose condition of the mesenteric veins.

Observation 4.—A man, aged 40, of sanguineous temperament, suffering from ascites for two months; having been tapped before, and cured by diuretics; was subjected to the treatment of injection, October 25. He was already emaciated, suffered from dyspnœa, œdema of the legs, and suppression of the urine. Severe pain followed the operation. On the fifth day the fluid re-appeared. Death ensued December 1.

Necropsy.—Twenty pints of fluid in the abdomen; peritonitis with suppuration; varicose condition of the intestinal veins; discoloration of the spleen; cirrhosis of the liver. Phlebitis had produced obliteration of the second and third ramifications of the portal vein.

Observation 5.—A man, aged 50, became the subject of ascites, after a severe cold, followed by violent intestinal pains. Different remedies having failed, a puncture was made, August 21. Then forty grains of tincture of iodine, in three ounces of distilled water, were injected into the peritoneum. Four hours afterwards, violent pains extended over the whole abdomen, when venesection to twenty ounces was directed. The day following, the pain not having abated, thirty leeches were applied. On the 21st there was vomiting; small pulse. Death ensued on the 25th.

Necropsy.—Extreme emaciation; tympanitis; gangrene of the peritoneum; varicosity of the abdominal veins; all the viscera sound.—*Gazzetta Medica Lombardia*, April 18, 1854.

UNITED STATES.

On Prepared Citrate of Magnesia. By CHARLES ELLIS.

The article which is the subject of this notice is called *Prepared Citrate of Magnesia*, to distinguish it from the soluble cibrate, an account of which will be found in the American Journal of Pharmacy, vol. xxiv., page 115 by Edward Parrish.

Citrate of magnesia has within a comparatively short period of time been introduced into very general use. It is so destitute of bitterness or unpleasant taste, that its preference as an aperient medicine over the nauseous potion of epsom salts is readily accounted for.

The liquid citrate which is so favorite a remedy with physicians, whenever a saline cathartic is indicated, is one of the most eligible preparations of its kind yet introduced to the notice of the faculty. It is in consequence of its popularity that inquiries have been made for an article of similar properties *in powder*.

To render the "soluble citrate" pleasant to the taste, and capable of forming an effervescing solution when dissolved in water, it is necessary to combine with it sugar, and either bicarbonate of soda or potash, with the requisite quantity of citric or tartaric acid to decompose the latter.

If citric acid be used, care must be observed to dry it over a water bath so as to deprive it of water of crystallization, previous to its combination with the alkaline bicarbonates.

The *prepared citrate of magnesia* is not recommended as equal to the *solution*, because the citrate in powder, however carefully prepared, is only slowly soluble in cold water, and does not readily make a clear solution.

When such a preparation, however, is wanted, the following formula is submitted as having been found in practice to answer the desired purpose.

The *soluble citrate* used is that made by the formula published in a previous volume of this Journal, and referred to in the first part of this notice.

Take Magnesiæ citras,	ʒiv.
Sacchari pul.	ʒviij.
Acid citric, *vel* tartaric, pulv.,	ʒiiss.
Soda bicarb.,	ʒiij.
Ol. Limonis,	gtt. xx.

Combine the acid and sugar, and rub into a fine powder (if citric acid is used, dry all the water out over a water bath,) add the magnesiæ citras and ol. limonis, and mix intimately; then add the bicarb. of soda, and triturate the whole into a fine powder, which must be preserved in bottles properly excluded from the air. The dose for an adult is from one to three tablespoonfuls, mixed in a tumbler of water, and drank in a state of effervescence.—*American Jour. of Pharmacy.*

Editorial.

Meeting of the American Pharmaceutical Association.

This important body met in Cincinnati, July 25, and continued in session three days. We give below an abstract of the proceedings of the Association, embracing such portions as will be most interesting to our readers. We copy from the published report in the *Gazette.*

The following delegates were present:

From the Philadelphia College of Pharmacy: Henry C. Blair, Charles Ellis, John H. Ecky, Charles Bullock, Charles H. Dingee.

From the College of Pharmacy, of the City of New York: Geo. D. Coggeshall, Benj. Canavan, Eugene Dupuy, John Meakim.

From the Massachusetts College of Pharmacy: William A. Brewer, Samuel L. Colcord, Daniel Henchman, Joseph Burnett, Henry W. Lincoln.

From the Cincinnati College of Pharmacy: A. M. Stevens, Theodore Marsh, William H. Coolidge, E. S. Wayne, W. J. M. Gordon.

The following persons were, on recommendation of the Committee on Credentials, elected members of the Association, and signed the Constitution and By-Laws, viz: Lewis Rehfuss, W. S. Merrell, W. C. Arons, and W. H. Adderly, of Cincinnati, and Hamilton Creighton, of Xenia.

The roll being called, the following members were found to be

present: Samuel L. Colcord, C. Augustus Smith, Wm. Procter, Jr., C. B. Guthrie, W. B. Chapman, Henry T. Cummings, Wm. C. Arons, Wm. H. Adderly, Wm. S. Merrell, Hamilton Creighton, Ed. S. Wayne, W. H. Coolidge, A. M. Stevens, Theo. Marsh, W. J. M. Gordon, Lewis Rehfuss.

On motion, a committee was selected to nominate officers for the Association. The members of the committee were appointed by the respective delegates as follows:

Wm. Procter, Jr., of Philadelphia, S. M. Colcord, of Boston, Wm. H. Coolidge and C. A. Smith, of Cincinnati, Henry T. Cummings, of Portland, Me., and H. Creighton, of Xenia.

The committee reported the following nominations:

For President—W. B. Chapman, M. D., Cincinnati, O.

For Vice President—Henry T. Cummings, Portland, Me., Joseph Laidley, of Va., and John Meakim, of New York.

For Recording Secretary—E. S. Wayne, of Cincinnati, O.

For Corresponding Secretary—Wm. Procter, Jr., of Philadelphia.

For Treasurer—Samuel L. Colcord, of Boston.

For Executive Committee—Edward Parrish, of Philadelphia, A. M. Stevens, of Cincinnati, and C. B. Guthrie, M. D., of Memphis, Tenn.

The report was accepted, and on a ballot being taken, the nominations were unanimously confirmed by the Association.

Dr. Chapman, the President, was conducted to the chair, and returned thanks for the honor shown him.

Prof. Procter read an interesting paper on Pharmaceutical education. It took high grounds, calculated to encourage the Pharmaceutists of the United States to give more attention to those under their care, and to induce young men to devote their leisure to a better purpose, and in time become prominent and useful members of the Profession of Pharmacy.

The Professor recommended an address, which accompanied the report; the Association ordered it to be printed and extensively circulated.

By an inquiry extended to all sections of the Union, the committee ascertained that a vital defect existed in the very budding process of pharmaceutical education—the apprenticeship. In all the pharmaceutical institutions of Europe, where degrees are granted to apothecaries, the preliminary service in the shop is a *sine qua non* to admissions to the examinations, it being generally four years, and in many of them the attendance on lectures follows this term of practical initiation into the duties of the shop and laboratory. In England, and in some of the Atlantic cities, particularly in Philadelphia, a system of apprenticeship exists, yet it scarcely happens that a lad is legally indentured.

The causes assigned for the ill supply of competent clerks,

arises primarily from the want of a correct feeling of the dignity and responsibility of the calling of the apothecary, as a branch of the medical profession.

Many buy their preparations ready made, except the simple ones, and at the lowest price; and the business, thus shorn of its most interesting department, the application of chemistry to the conversion of crude drugs into medicines, becomes a mere store keeping, where the drug clerk is kept putting up and selling parcels and bottles of medicine, the preparations of which and the beautiful reactions often concerned in their manufacture, he is a complete stranger to, as though they did not exist.

Making the official preparations is, therefore, an indispensable part of pharmaceutical education; and no apothecary, whose scheme of business does not include, at least, a considerable portion of them, can efficiently educate those under his care.

The same gentleman, Chairman of the committee appointed last year, to whom the circular of instructions, issued by the Secretary of the Treasury was committed, made an extended report, which was adopted.

The same gentleman, Chairman of the committee to whom was referred the subject of the expediency of endeavoring to obtain such congressional action as to compel all special examiners of drugs and medicines to be either graduates of Pharmacy or to receive certificates of qualification for such office from some college of pharmacy recognized by the association, reported that application had been made by letter to a prominent member of Congress, but received no encouragement to proceed further. They believe, in view of the partizan character of political appointments, and the little dependence that can be placed on the judgment of the appointing power in cases like the one under consideration, it will be inexpedient to make any application to Congress until such time as the drug law itself may require a general change or re-enactment, when a clause might be inserted, making it obligatory on the Secretary of the Treasury to appoint fully qualified pharmaceutists, or persons who have been educated as such.

The same gentleman, Chairman of the committee to consider that part of the report of the Committee on the Inspection of Drugs, relating to the fixing of standards of quality for those drugs capable of it, together with the appropriate tests for detecting adulterations when practicable, made an able report, which was read and adopted.

A communication was read from Gustavus L. Simmons, of Sacramento City, correspondent of the association, giving a report of the state of pharmacy in the State of California for the past year. He states that there are seventy-seven drug stores in that State.

Dr. Guthrie, from the committee on the subject of "Home Adulterations," asked further time to report, which was granted. Many

interesting facts were mentioned as to adulteration of drugs, both in eastern and western cities. It was stated that, for several years, there was shipped from Cincinnati to the East, tons of the outside bark of the Sycamore tree, which is an inert substance, and can only be intended for adulterating more valuable articles.

Prof. Proctor made a report on the subject of quack medicines, which closed with the following suggestions:

1st. That this desire for medicine can be gratified in a legitimate way, by regular official preparations.

2d. That it is the duty as well as interest of the apothecaries and druggists, to advocate the use of the official medicines in lieu of the quackery of the day.

3d. That it is the rightful interest of regular pharmaceutists to divert the thousands, which now annually flow into the coffers of quacks, into their own limited stores, where of right it belongs.

4th. This can only be done by a united and sustained action on the part of the pharmaceutists and druggists of the Union, by which they will *practically* refrain from the sale or advocation of secret medicines, and substitute regular official compounds for them, correctly labelled with name and directions for use.

5th. This course should receive the sanction of physicians, as the only one likely to remedy the evil, as the tendency to take medicine *ad libitum* is a feature of the Anglo-saxon race, duly inherited by the American people, which, whatever may be its faults, is as much their nature as is the love of political and personal freedom.

With regard to the propriety and efficacy of Legislative action, we think that movements in that direction should originate in the several States, and be the joint action of the medical and pharmaceutical professions; and when applications are made to Legislatures, they should be based on a real interest on the part of druggists and apothecaries generally, to abate the evil, and not on a partial or very local movement. Adjourned.

At 8 o'clock the association met, and, on invitation, visited in a body the Cabinet of the Cincinnati College of Pharmacy, which has already attained a considerable variety and value. It is located in the Museum room of the Miami Medical College, corner of Fifth street and Western row. There are in it seventy-five medicinal and botanical specimens from the East Indies, few of which are known to our Pharmacopœa, besides a large number of medicinal substances, new and not recognized by any of our works upon Materia Medica. The collection of Cinchona barks is quite extensive, containing over forty specimens, among which there is a number of specimens of the Grenada barks, a new variety which has been thrown into market through the monopoly of the Peruvian government of the officinal barks. These barks contain a large per cent. of quinine, and the newly discovered Alcaloid Quinidine.

The Museum now contains about eight hundred specimens of Materia Medica, the largest in the West, and fresh additions are rapidly accumulating. The visit was a very satisfactory one to all the association. Before returning to the hall, a visit was made to the steam fire engine, all expressing an interest in this great curiosity of the age, so creditable to its inventor and Cincinnati. On resuming business on return to the Institute, the minutes were read and approved.

Dr. Guthrie, chairman of the committee on collecting and arranging the statistics of pharmacy in the United States, read contributions from Joseph Laidley, of Richmond, Va., on the state of pharmacy in the Southern Atlantic states, accompanied with two tables—one of the statistics of cities, the other of states—containing much valuable information.

Dr. Guthrie gave some interesting verbal statements as to the pharmaceutical condition of Louisiana, Mississippi, Arkansas and Tennessee.

A communication from Dr. Cummings, of Maine, on the pharmaceutical condition of the New England states, stated that there were in that part of the country, as by the census of 1850, 907 drug stores; that the condition of the profession was not looked upon as it ought to be; its character was that of a science instead of that of a trade. He alluded with some severity to the jealousy of some physicians to it. He remarked:

That a great deal of blame attaches to a portion of the members of the medical profession, for the low character of many establishments of pharmacy. In some towns—large and abundantly able to support an apothecary, the physicians actuated by a mean jealousy, and a grasping avarice, covetous of the profits accruing from the sale of medicines, and, in some instances, fearful of displaying their own ignorance, frown down and oppose by every means in their power, the establishment of a pharmacy by an educated and practical man, who, in his turn, in order that he may be able to keep body and soul together, until he can obtain a footing, is compelled to mingle with the sale of legitimate medicine, confectionary, fancy goods and quack medicines. In such cases, did physicians understand and consult their own interest, we should see them fraternizing with the apothecary, and instead of regarding his profession as merely subordinate and mechanical, recognizing it as nearly, if not equal in importance and scientific value with their own, to the health and welfare of the community. One thing is certain, that the whole medical profession, with scarcely a single exception, by no means recognizes as it ought, the importance, the respectability, and the real value of the pharmaceutical profession. Witness the muttering of some, at an apothecary being allowed to introduce the pharmaceutical association to the medical profession of Maine, at the last meeting of

the Maine medical association. Witness the National medical association, excluding delegates from colleges of pharmacy, or other pharmaceutical bodies. One grand duty we have to perform is to exalt our profession, to claim for it a place far above mere merchandise, and assert its dignity as a science, and not as a trade.

A very small proportion of those who have taken up this profession, especially in towns and villages, are educated men, and a still more minute percentage have been educated expressly for it. This fact is the source of many and great evils, and it is beginning to be recognized by the public. As a sample of what has just been remarked, let me quote from one of my correspondents in a large town in Maine: "A few days since, several ounces of sulphuric acid were thrown into a man's face by a clerk in one of our drug stores, probably under the mistaken idea that the effect would be but momentary. 'Tis a sad case, and will probably result in the loss of both eyes." This ignorance is becoming known to the public, and there is scarcely a day that I am at home, but I hear it rather publicly alluded to in terms indicating a constantly increasing disgust. This ignorance exhibits itself in various ways and on various occasions. A veteran pharmaceutist, from Vermont, writes me: "On my return from Boston last August, I stopped in Troy, New York, a city of 40,000 souls. In conversation with three of its principal apothecaries, I found that they mistook the dispensatory of Wood and Bache for the pharmacopœia, and that not a single copy of that standard authority could be found in the city. In weight, also, none of the apothecaries used troy weights for weighing beyond two drachms, having no avoirdupois weight." And in passing, I would remark, that I do not believe that medical men themselves, in a large majority of cases, know the difference between pharmacopœia and dispensatory, or can appreciate the difference in the strength of preparations compounded by troy and avoirdupois weight. I say this on the authority of my own observation, as well as on that of the correspondent whom I have just quoted.

On motion of C. Aug. Smith, after reading his report touching the propriety of offering prizes for essays, it was

Resolved, That a premium of 23 volumes of American Journal of Pharmacy be offered for the best essay which shall develope the commmercial history of all drugs indiganous to the United States, as Senega, Spigelia, Serpentenia, &c., as regards the manner and places of their collection for the supply of commerce, the annual amount collected, and the channels through which they enter general commerce. And a premium of 6 volumes of Gmelen's Inorganic Chemistry, for the best essay on the question, Do Hyoscyamus and Belladonna, grown in the United States, contain the active principles in the same proportions as the European plants?

Resolved, That all essays be referred to a special committee who shall report upon their merits at the next annual meeting of the Association; the committee to consist of Daniel B. Smith, of Phila., Dr. David Stewart, of Baltimore, and John Meakim of New York. That if, in the opinion of the committee of judges, none of the essays read are worthy of the prizes, that they decline the same in their report, the contributors may then either withdraw their essays or leave them in possession of the Association.

Resolved, That all essays contributed for prizes now offered, shall be sent to Daniel B. Smith, of Philadelphia, on or before the second Tuesday of August, 1855, in order to give time to the committee to duly examine them.

On motion of C. Aug. Smith, it was resolved that when the Association adjourn, it would be to meet in the city of New York, on the second Tuesday in September, 1855.

On motion of C. Aug. Smith, it was

Resolved, That a committee of three be appointed to prepare a draft of a law regulating the sale of poisons, to be submitted to the Association at their next annual meeting, and if approved, presented to the Legislatures of the several States for their adoption,

Alfred B. Taylor, of Philadelphia, Joseph Laidley, of Richmond, Va., Theodore Marsh, of Cincinnati, were appointed that committee.

Resolved, That a committee of four be appointed to inquire whether any, and what amendments are required to the law regulating the importation of drugs and medicines, to render it more efficient, uniform, and advantageous to the public at large.

C. B. Guthrie, of Memphis, Geo. D. Coggeshall, L. S. Haskell, of New York, and A. M. Stevens, of Cincinnati, were appointed the committee.

Resolved, That this Association having learned with great interest, that in the culture of the grape in the neighborhood of Cincinnati, attention has been turned to the production of wine and tartar, and that the success which has thus far attended this branch of industry, leads to the belief, that in a few years the crop of each will be extensive; it is, therefore, in view of these articles of medicine,

Resolved, That a committee of three be appointed to inquire into the adaptation of these wines for medical purposes, and the probable amount and quantity of tartar likely to be produced annually.

L. Rehfuss, of Cincinnati, C. Aug. Smith, of Kentucky, C. B. Guthrie, of Memphis, were appointed the committee.

In the true spirit of hospitable entertainment, the Cincinnati College of Pharmacy, had provided an elegant entertainment at the Burnet House, in order that the Medical Fraternity, and the Pharmaceutists of the city and Association, might cordially unite in

sympathy with the well-deserving enterprise that promised to effect a mutual good.

Mr. Kingsbury, the caterer of the Burnet House, threw open the doors of the ladies parlor at 9 P. M., and some seventy persons—invited guests—sat down to the well supplied tables. The following officers of the Cincinnati College of Pharmacy had charge of the entertainment: Dr. W. B. Chapman, President, W. C. Aroha, Recording Secretary, E. S. Wayne, Corresponding Secretary, W. J. M. Gordon, Treasurer; W. S. Merrell, Theodore Marsh, J. V. Whetstone, A. H. Stevens, W. H. Coolidge, and John Parr, Trustees.

After the removal of the cloth, toasts and sentiments were given, with speeches from Dr. Lawson, Dr. Mendenhall, Dr. Graham, Dr. Bakhaus, and others of the Medical Faculty, approving of the object of the Association, and wishing prosperity to the enterprise.

In response to a toast by Dr. Guthrie to the Cincinnati Gazette, for the publication of the proceedings of the Convention, a reply was made by Col. Schouler. Mr. Bruen and Mr. McCormick were also called out, and answered for the Press. Prof. Procter replied to toasts complimentary to the Philadelphia College of Pharmacy, and Mr. Colcord, of Boston, to those complimentary of the Massachusetts College of Pharmacy.

The absent members were toasted, and the company parted at 12 o'clock.

[We insert the following communication in response to Dr. Cowan's inquiry in regard to the treatment of asthma.]

MIDWAY, Woodford Co., Ky., July 28th, 1854.

Editors Western Lancet:

In respect to Dr. W. V. Cowan's case of asthma (T. H.,) I beg leave to suggest the propriety of a journey, including the period of attack. As all other means, seemingly, have been tried to no purpose, and remembering idiosyncrasies, such as Hay Asthma, the effects of ipecac odor, &c., and, as the attack occurs but once a year and at the same season, we might justly suspect some such cause. Therefore, I would recommend a trip at the time, either north or south, where the season is farther or not so far advanced, so as to have a change of external influences. If this should not meet the means or inclination of the patient, I would secondly suggest just before the attack, quinine and carb. iron, six grains each, three times per day, with a diffusion of chlorine, by means of chloride of lime, about his apartment.

Yours, W. T. RISQUE.

The *Dublin Medical Press* (July 5th,) has the following in relation to the Medical Staff in the East:

The Medical Staff in the East (says the *Times*,) is very inferior; the subordinates are youths from the schools, sent out to perform the most difficult duties of surgery." The Turkish surgeons know nothing but cupping with cow's horns, and "many a patient has sunk, which a judicious knife would have relieved; their usual plea that the man will probably die, and it is no use to put him to pain."

The state of the profession in London. is thus noticed by the correspondent of the *Press*: "The practical result of this system is to leave everything utterly at sea and disorganized; the only thing in London at least fixed and respected, are quackery and chemists' shops. Some of the best men in London, which it would astonish you to hear named, have had to lock up their diplomas, and go quietly and open chemists' shops"

HOMŒOPATHY—DEATH OF A HOSPITAL.

The London *Hahnemann Hospital* has died—*ex necessitate rei*—and its effects sold at auction.

☞ The Pennsylvania Medical College, Philadelphia, has recently received two important additions—Dr. Stille in the chair of Practice, and Dr. Neil in that of Surgery.

☞ In the *Virginia Medical College* (Richmond,) Dr. Wellford has been elected to the chair of Materia Medica, and M. Brown Sequard to the Institutes of Medicine.

☞ Dr. Asa Lincoln, of Brimfield, Mass., recently committed suicide by starvation.

STARLING MEDICAL COLLEGE.

We hear with pleasure, that Dr. John Dawson, editor of the *Ohio Medical and Surgical Journal*, has been appointed to the chair of Anatomy in the above institution. Dr. Dawson is a superior anatomist, and a gentleman of fine abilities, and will, no doubt, discharge the duties of his position creditably to himself and advantageously to the institution with which he has become connected.

RENOUARD HISTORY OF MEDICINE.

We invite the attention of our readers to the advertisement of Dr. Comegy, in the present number of the Lancet. The work referred to is an important and vaulable one, and we commend the translation to our readers.

INDIANA MEDICAL JOURNAL.

This is a new candidate for professional favor, which is published at Evansville, Ind., and edited by W. H. Byford and Hugh Ronald, M. D., Professors in the Evansville Medical College. The present number is filled with valuable original and selected articles, and its successor will, doubtless, be equally valuable. We wish the editors success.

Miscellany.

Abstract of Meteorological Observations at Zanesville, Ohio, for July, 1854. By Jno. G. T. Holston, A.M., M.D.

Latitude, Longitude, As determined by Polaris and the great Eclipse of June 26, 1854,	5h. 28′ 4″ / 39° 58′
Hight above the sea,	700 ft.
Site—Ancient alluvium post pliocene, containing mammoth bones, &c. superimposed on carboniferous rocks.	
Average hight of barometer for the month,	29.34 in.
Greatest " " " " "	29.40 in.
Lowest " " " " "	29.05 in.
Range of barometer,	0.35 in.
Highest temperature was July 20, when the average hight of thermometer in the 24 hours was	88°
At 2 o'clock, P. M., in the shade,	104°
Coldest day, July 13—average,	70°
Lowest, at 7 o'clock, A. M., that day,	60°
Average daily range,	26°
Range between highest and lowest,	44°
Average temperature of the month,	79°
Largest amount of rain, July 30,	0,940 in.
Total amount of rain,	2,139 in.
Daily average,	0,069 in.
Highest Dew-point, July 8th, 2 o'clock, P. M.,	91°
Lowest " July 13, 7 A. M.,	60°

Prevailing diseases, Diarrhœa, Cholera Morbus—No cholera.

Whole Number of Deaths in Cincinnati during the Month of July.
Reported by the Board of Health.

OFFICE OF THE BOARD OF HEALTH, Cincinnati, Aug. 2, 1854.

CAUSE OF DEATH.	
Apoplexy	4
Casualty	6
Cholera Morbus	5
Cholera, Asiatic	97
Consumption	28
Convulsions	21
Congestion of the Brain	11
Delirium Tremens	3
Diarrhœa	2
Diabetes	2
Disease of the Brain	3
" " Lungs	4
" " Heart	2
" " Spine	2
Dropsy	1
Dysentery	15
Erysipelas	1
Fever, Congestive	3
" Intermittent	2
" Scarlet	10
" Typhus	4
" Typhoid	3
General Debility and old age	8
Inflammation of the Brain	16
" " Bowels	6
" " Lungs	2
Intemperance	5
Marasmus	2
Measles	16
Murdered	1
Paralysis	2
Parturition	6
Premature Birth	8
Sun-struck	20
Summer Complaint	78
Small Pox	1
Suicide	1
Teething	7
Dead-born	10
Cause not reported	123
Total	544

AGE.	
Less than 1 year old	102
Between 1 and 2 years	60
" 2 " 3 "	40
" 3 " 4 "	19
" 4 " 5 "	10
" 5 " 10 "	17
" 10 " 15 "	10
" 15 " 20 "	11
" 20 " 30 "	68
" 30 " 40 "	48
" 40 " 50 "	27
" 50 " 60 "	15
" 60 " 70 "	9
" 70 " 80 "	2
" 80 " 90 "	2
" 90 100 "	1
Dead-born	10
Age not reported	106
Total	544

NATIVITY.	
United States	186
England	9
Ireland	98
Scotland	2
Wales	2
Germany	136
Switzerland	2
France	2
Nativity not reported	107
Total	544

Included in the above, are over 100 interments by hackmen and others, where a regular undertaker was not employed. This accounts for the *cause of death*, &c., not being reported in so large a number of cases. The increase of mortality is undoubtedly due, in a great measure, to the extreme heat, the thermometer having ranged higher during the month than it has for many years, except July, 1850. Of the 97 deaths by cholera, reported above, 27 occurred during the first week, 13 during the second, 30 during the third, and 33 during the fourth. There appears to be no indication at present of the disease spreading; on the contrary, we confidently look for a rapid decrease in the number of deaths, both from cholera and other diseases, as the weather becomes cooler.

Published by order of the Board of Health.

C. B. HUGHES, *Health Officer.*

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

AND

T. WOOD, M. D.,

PROFESSOR OF ANATOMY IN THE MEDICAL COLLEGE OF OHIO, AND OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY.

No. 9. CINCINNATI, SEPTEMBER, 1854. Vol. XVI.

Original Lectures, Essays and Communications.

Arsenical Poisoning, reported. By G. F. Holston, A. M. M. D., Zanesville, Ohio.

In consultation with Drs. Howe, Culbertson, and Buckwell, I was called to see Mrs. Casey, whom I found in a dying condition, though perfectly rational; pulse at the wrist extinct—cold, clammy perspiration covering the whole body—tongue red, voice husky. She stated that her illness had arisen in consequence of partaking of some whisky, together with Mrs. Richard Tactman and Mrs. Hendricks, who were seized in the same manner, suffered like herself, and were then both dead; this was eleven o'clock at night. She died soon next morning. The two other individuals had no medical attendance. The two other physicians gave me the following summary of Mrs. Casey's symptoms, previous to my visit: Suffusion of the eyes, congestion of conjunctiva, faintness, partial stupor, depression, nausea, burning pain in the stomach, violent vomiting, pain in abdomen, some diarrhœa, skin pale and clammy, pulse frequent, small, and so irregular that it could not well be counted. She died partially paralyzed and comatose. The attending

physicians gave it as their opinion that this was a case of arsenical poisoning; in which opinion I fully concurred.

After our visit to Mrs. Casey, we proceeded to make a post-mortem examination of Mrs. Hendricks, who had died some ten or twelve hours previously. External appearance, that of a robust, muscular female, about 60—no external marks of violence, but the following abnormal appearance, viz: Redness of the conjunctiva, and the external jugular, as well as other superficial veins being full of black fluid blood; there was venous congestion of the skin of face, neck, and thorax, giving those parts a mottled appearance.

On opening the body, the heart and larger vessels were found full of black fluid blood, the peritoneum was found reddened throughout, the mucous coat of the stomach inflamed throughout its whole extent, but most violently toward the cardiac orifice; it was softened in spots, and there were a few sphacelated patches; the œsophagus and duodenum also presented cases of acute inflammation. The stomach, with its contents, the liver and duodenum were then carefully removed and delivered to me for chemical analysis, which was conducted in the following manner: I first assured myself, by careful examination, that my sulphuric, nitric, and hydrocloric acids were freed from arsenic, and also purified some zinc, by deflagration and fusion, with nitrate of potash. The viscera and their contents, that, notwithstanding their being kept three days, smelt not the least putrid, were then cut small and boiled in a porcelain vessel, for one hour, in water acidulated with hydrochloric acid. The fluid was strained off through a wet filtering cloth, which retained most of the fat, as well as the solid matter. This fluid—the color of beer—was strongly acid, and had a peculiar, hardly animal—smell. Being heated to ebullition, a slip of pure bright copper foil was introduced, which immediately lost its lustre, and in fifteen minutes was covered with a blueish white film. The copper was rinsed in distilled water, carefully dried, cut small and introduced into a narrow tube of hard Bohemian glass, closed at one end, and six or seven inches long. The heat of a spirit lamp being applied, there was formed in the cooler part of the tube a faint metallic ring, some brown patches and a white crystalline deposit, which by heat could be driven from one part of the tube to another, and all becoming white. Nitric acid dissolved all. The few drops of solution were diluted with water and tested with ammonia,

nitrate of silver and ammoniated sulphate of copper, when the characteristic yellow and green precipitates were produced.

The residue on the filter was again heated, evaporated nearly to dryness, and then carbonized, with sulphuric and a little nitric acid. The charcoal, being crushed, was for an hour boiled with distilled water, then filtered through paper and allowed to cool. A stream of chlorine was then passed through the fluid, till no other change took place in its appearance, when it was again filtered and had the appearance of pale sherry wine. A part of it was introduced into a Marsto's apparatus, constructed as follows: Through the cork of a flat bottomed flask, containing the suspected liquid, a tube passed to the bottom of a Wolf's bottle, nearly filled with water, from the other side of which and *above* the water, a tube was conducted into a *clear* solution of nitrate of silver in distilled water. The fluid in the flask was now more strongly acidulated with sulphuric acid, and a few pieces of zinc added. A small alcohol lamp was placed under the horizontal part of the tube leading from the Wolf's bottle to the test tube. As the bubbles of gas escaped through the silver solution, *black* precipitation ensued, and a very satisfactory metallic ring was also formed in a cool part of the tube. The apparatus being disconnected, heat was applied to the ring, which volatilized as a thin white cloud, and was redeposited in crystalline grains, having, under the magnifyer, an almost adamantine lustre. A drop of nitric acid dissolved those crystals, and the fluid tests again gave the characteristic yellow and green precipitates, with the amoniated nitrate of silver and the amoniated sulph. of copper.

The balance of the fluid then had a little sulphurous acid added, to convert any arsenic into arsenious acid and then was exposed to a current of sulphuretted hydrogen gas. The liquid became slightly turbid, and, on being boiled, a yellow precipitate, in small quantity, fell to the bottom. In collecting this precipitate, the precaution was neglected of wetting the filter, so that most of it entered the pores of, and all was strongly adherent to, the paper, which prevented a further testing without going to more trouble and spending more time than was considered necessary, the previous investigations, medical, anatomical, and chemical, being deemed fully satisfactory, in which conclusion every one conversant with the matter here has fully acquiesced.

These are the cases that have been blazed abroad all over the Union, under Protean forms, but generally with the cap-

tion B, or one similar: "Three men killed in Zanesville, by whisky drugged with strychnine."

I attempted to set the matter right by a simple statement that arsenic, not *strychnine*, was the agent, and was so unfortunate as to add a remark that strychnine was not *the article* used for adulterating common whisky, for which its intense bitterness, even in very minute quantities, utterly unqualified it; that sometimes, but rarely, it is used in the adulteration of the stronger beers; and finally, that our common corn whisky is, de facto, the purest liquor we have, and the basis of most others sold. Its cheapness, 16 to 20 cents per gallon, guaranteeing, to a great extent, against adulterations, which if made at all, will be made with water and other cheap articles—not costly chemicals. For this I have, in various papers, been held up as the drunkard's advocate, the dramsellers' defender, etc.; to all which I say, "*Magna est veritas et prevalebit*"—Great is truth and it shall prevail. I love and honor the cause of temperance, but despise a lie, and think it folly as well as blasphemy to fight the Lord's battles with the devil's weapons.

Yours, &c.

Creasote in the Treatment of Diabetes Mellitus. By E. B. HARRISON, M. D., of Rochelle, Ohio.

I here drop you a line on the treatment of Diabetes Mellitus, by Creasote. The number of cases are not sufficient to form a very firm opinion of the value of the treatment, but they will at least, in some measure, confirm the opinion of Dr. Watson in regard to the article in question. My object is simply to narrate a truth, and you will please decide for or against the publication of it. I will give a brief outline of the cases. Mrs. M., aged thirty-two years, of ordinary size, and, previous to this attack, had enjoyed good health, complained, for some weeks before I first saw her, of head-ache, very urgent thirst, craving appetite, pain and distress in the stomach, skin dry and hot, frequent and copious discharges of urine, with burning and pain at the external orifice of the urethra, cold feet and hands. When I saw her, the countenance was anxious and of a greenish hue, the pulse small and quick, tongue bright red, clean, and studded with white blisters toward the back part, skin dry and hot, thirst urgent,

bowels confined, breathing somewhat difficult, eyes painful and heavy, severe pains in back and limbs, muscular prostration great. She passed about five pints of pale straw-colored urine, in twenty-four hours, of peculiar smell, and of faintly sweetish taste; specific gravity, 1045, and by the application of the "yeast" test, evidently contained sugar. After giving some mild aperients and regulating the bowels, Mur. Tinct. Ferri 15 min. three times a day, Doveri et Pulv. Uva Ursi, aa. v. grs. at bed time, warm frictions to skin, I confined her diet to meat, eggs, and an occasional allowance of stale bread, wine and water for drink; continued this treatment for near a month, without any benefit save some increase of strength, and a slight diminution in the quantity of urine, the specific gravity being the same. I then gave her ʒij. of the Creasote Mixture, containing two drops of the Creasote, three times a day after eating; continued the experiments, and meat diet, wine and water, as before. In twenty days after this treatment had been used there was great improvement in all the symptoms. The urine soon fell to three pints, specific gravity to 1025, skin became moist, bowels regular, and strength gradually returned, and with it the flesh. It has been now five months since the patient returned to former habits, and there are no symptoms of returning disease; the specific gravity 1018–20. I have the patient wear flannel next the skin.

Case 2d, J. C., aged fourteen years, rather tall and slender of his age, has been wasting flesh for a month, all the symptoms well marked, thirst extreme, appetite enormous, stomach painful after eating, skin dry, pulse weak, tongue coated with a white fur, bowels torpid, passes from two and a half to three quarts of urine, of the specific gravity 1042. Put him on the use of mild aperients and the Creosote mixture in ʒiss doses ter die, with diet as in the preceding case. The beneficial effect of the treatment was visible in three weeks; from which time he has been slowly but constantly improving, until this time (three months). He is now apparently quite well, strength restored, urine natural in quantity and density.

Such has been my success in the treatment of Diabetes. What will be the future condition of my patients is yet to be seen. From the experience of such men as Dr. Prout, Dr. Watt and others, I fear they *may* suffer a relapse. Let others, more competent, speculate on the nature of the disease.

Case of Pervious Umbilical Cord, through which passed pure Bile for Nine Weeks. By JULIUS F. TAYLOR, M. D., Carrolton, Montgomery county, Ohio. Read before the Montgomery County Medical Society.

Mrs. D. R. was confined on February 7th, 1854, with a healthy male child; on the fourth day after birth the cord separated, leaving a healthy navel, which continued to heal until the eighth day, when the nurse observed the dressings to be stained green. After this the parts did not heal, and the clothes continued to be stained green at every dressing.

On the twelfth day, I was called to see the child, and found the navel sore, and, upon close inspection, with a magnifier, I found the cord to be pervious. After waiting a few moments, I observed a fluid exuding from the open mouths of the cord; upon examination, I found it to be pure bile of a very green color.

The child, in all other respects, had the appearance of good health; it nursed freely and had regular alvine evacuations, which were, however, of a light color, except in a few instances, when they were tinged with green.

From the time of my first visit up to the death of the child, I visited it frequently, and found the health gradually to decline; it had some cough, but was generally quite easy, except when it would have a large quantity of "*bile*" passing from the cord—then it would cry as if affected with pain.

The quantity of bile that would pass at one time varied from a few drops to a large teaspoonful. It likewise varied in color, sometimes of a yellowish green, and then it would be in the large quantity, but most generally it was of a deep green.

The health gradually declined, like one that was wasting from Marasmus. On the 25th and 26th days the color was quite livid and the health very much depressed. After a few days, it revived and seemed quite healthy, except the continued passing of bile from the cord and the gradual emaciation of the body. It lived until the 20th of April, when it died, apparently from exhaustion.

The treatment that was instituted in this case, was, at first, stopping the mouths of the open vessel by pledgits of lint, moistened with collodion, on which I made light pressure. This had, for the time, the effect of completely stopping the discharge; but I soon found that, by stopping it at the orifice, it accumulated, and after a day or two, gave us certain indica-

tions of approaching ulceration. Upon this appearing, I at once discontinued the perfect stopping of the orifice, except by the application of lint and keeping the parts perfectly clean and moistened by some light astringent.

I gave an occasional laxative to keep its bowels free, and endeavored to excite a free passage of bile into the bowels, which occurrence did take place two or three times during the life of the babe, as was evidenced by strong biliary alvine evacuations.

REMARKS.—When we reflect upon the importance of the bile, in perfecting the process of digestion, we are not at any loss to account for the death of this child from emaciation.

The biliary secretion being acknowledged to be one of the most important agents in the progress of chylification, without it no pure chyle is found, and hence the food is not prepared for giving support to the muscular system. The chyliferous vessels refusing to absorb the imperfectly formed chyle, the blood is not renovated or made rich for the support of the animal economy—and hence death by emaciation.

Remarks on the Use of Ergot. By L. RITTER.

In support of the opinion that Ergot of Rye acts as a stimulus to the lower spinal ganglia, I submit to you the following case:

Mrs. S., aged about 30, the mother of four children, was delivered, after a protracted labor, of a fine large male child, September 10th, 1853. On the 7th day after confinement, was taken with Phlegmasia Dolens of right leg, which yielded to the appropriate treatment in a few days, but was followed immediately with a like affection of the other extremity.

From the time of the first manifestation of the disease, paralysis of the bladder was present, first partially, but in a few days it became total. After the local symptoms of the Phlegmasia were abated, the patient suffered for about two weeks with continued fever, during which time the water was drawn by the catheter. The fever gave way and recovery proceeded as rapidly as was expected, save the vesical paralysis and an inability to walk, resulting from a want of power over the lower extremities. To remedy these, the various preparations of steel, quinine, strychnine, &c. were used. Cantharides, in the form of tincture, internally, and blistering externally was also tried, but still the patient's con-

dition remained much the same. The extremities meanwhile became œdematous.

The above remedies were persevered in for fifteen days. At this time the Ergot was commenced in scruple doses, three times per diem. In six days the vesical paralysis had entirely subsided, and there was a marked increase of power over the lower extremities, the œdema subsiding. The Ergot was continued, in diminished doses, for a week longer. The paralysis never returned, and the lower limbs regained their healthy state with rapidity.

On the Catarrhal Fever of Infants. Read before the Lebanon Medical Society, May, 1854. By EDWARD B. STEVENS, M. D.

I desire to call the attention of the Society at this time, briefly, to what I shall style the *Catarrhal Fever of Infants* —a form of disease which, I do not doubt, has been a fruitful source of deep and painful anxiety to every gentleman present. And further, I suppose a very universal sentiment will agree in the perplexity which these little patients have created, both as to the indications to be met, oftentimes, as well as the best means of meeting them.

In different sections of this country, and at various times, a form of disease has appeared, which has been treated of with considerable niceness of detail, under the title of "*Epidemic Meningitis.*" In many respects the affection under consideration bears a striking resemblance to the Epidemic Meningitis, so described. A large proportion, or most of the children I have seen, prove fatal cases of *Catarrhal Fever*, have evidently been hydrocephalic towards that termination. In the progress of the case, there have been convulsions, incessant rocking of the head, peculiar dark-green-paint stools, and stupor,—giving evidence of a certain degree of menimgral inflammation, but none of them have been *purely* or chiefly of that character.

Other features of these cases constitute, almost essentially, simply Bronchitis. Thus, running through some portion, or perhaps the greater part of the progress of the case, we shall have cough, mucous rattle, pain, the pulse quick and sharp—often up to 160—and yet the case is *not* Bronchitis, simply nor chiefly, for in many respects it is different. Infantile Bronchitis is very happily presented in the Treatise on Chil-

dren, by Dr. Condie; and, indeed, I have not seen any recent work which gives such clear and satisfactory details of the nature and treatment of this, and many other infantile diseases. In nothing, however, do I find what seems to me to be a satisfactory view of *Catarrhal Fever*, treated as a unit.

Catarrhal disease is supposed to result from some peculiar atmospheric influence: in a simple attack, generally passing under the indefinite name of "bad cold," sometimes epidemic in a whole neighborhood or country, and often very peculiar in its appearance or type. When the especial cause of Catarrh, however, attacks the delicate linings of the nostrils and frontal sinus, there is produced what we call *Coryza.* If it passes towards the brain, we have some form of *meningral disease*, with fever of a low grade, and stupor or convulsions, perhaps. If it passes along the throat, and invades the lungs, or makes its first invasion there, we have *Bronchitis* or *Pneumonia;* or, should it, as it sometimes does, affect the mucous coating of the bowels, it may produce a *Catarrhal Diarrhœa.* Now, these are all forms of Catarrhal disease, well understood by the profession, easily recognized, and, for the most part, the therapeutic indications are manifest enough.

I am well satisfied, however, that there is a more complex form of Catarrh, wherein *all these important regions* become invaded, apparently at the same time, or nearly so, and the vital forces give way with a predestined sureness and rapidity. From an anxious observation of many of these cases, I suppose there is oftentimes a simultaneous attack upon brain membranes, nasal linings, bronchial passages, mucous coatings of the bowels, and the cutaneous surface, and the whole group of consequent symptoms, constituting *proper "Catarrhal Fever."*

I do not forget that it may be urged with good reason, that whenever disease so impairs the function of respiration as to deteriorate the quality of the blood, the *brain, at once*, gives *apparent* evidence of disease, owing to a want of its accustomed nutriment, and the presence of excessive carbon; hence, stupor and convulsions, without any primary attack upon the brain or its membranes. And yet, we know very well that an aggravated Pneumonia or Bronchitis may exist in a child or adult, and no such sympathetic condition of the brain appear; so that, while this active sympathy may, and often doubtless does exist, it is not a *necessary* condition. I do not, therefore, regard this as any forcible contradiction of the view I have taken of the real nature of *Catarrhal Fever.*

The history of one of these little cases is something like this. If called early to see the patient, we will doubtless be told by the mother, that "her child has a *bad cold.*" Upon examination of the case, there is some cough, slight febrile condition of the skin, and increased frequency of the pulse; but if these symptoms are not promptly controlled, or, what is often the case, if attention is not called to them in this state, symptoms of a much more aggravated character come up there is stupor—frequently convulsions—hot, dry skin—and pulse from 140 to 160—cough and mucous rattle, with a labored panting respiration; there is generally evidence of pain, but, with patients so young there is difficulty in ascertaining its extent or character. Other cases present these worse features from the onset of the attack, and leave no evidence of any primary point of the invasion. I have found such cases, I think particularly, portend, for the most part, a fatal issue. Sometimes, after a few days, the mucous rattle would seem to give way, and a pleasant character of easy expectoration follow—the expression of the countenance becoming more intelligent and bright—with a pulse reduced from 160 to 120; and with such a condition of things lead friends and physicians to anticipate a speedy convalescence; but how deceptive these flattering indications prove! for other times, in less than twenty-four hours, and with no apparent cause, stupor and convulsions return—pulse becomes perfectly wild—skin dry and glistening, and death speedily relieves its little suffering victim. In the treatment of these cases, I have sought to secure a healthy state of the secretions, among the first and most important points,

Calomel and *Ipecac*, in small doses, has often had a satisfactory effect, acting at once as an alterant and diaphoretic; but owing to an obstinate degree of torpidity of the bowels, very often, perhaps *usually* present in these cases, I have found it seemingly impossible to make any impression upon the liver, or secure stools of a healthy appearance. With the *cathartic* I usually direct the *warm bath* and full *counter-irritant* applications.

Musk, given in the solution directed in U. S. Dispensatory, I have found to exert a good controlling influence on the tendency to convulsion; *cold* to the head; *sinapisms* and *blisters* to stomach, extremities, and back of the neck; torpid bathing, and sponging the surface; stimulants and diaphoretics; all seem so variously called for, that no brief paper would suffice to point out the details of their indication.

More fully to present the views so imperfectly and briefly given in this paper, I ask the patience of the society while I add the outline of two fatal cases that were under my care during the latter part of winter; they will doubtless illustrate more clearly the nature of the disease I have attempted to present as *Infantile Catarrhal Fever*, than any mere description of symptoms, be it ever so carefully worded.

CASE 1.—*Feb.* 3, 1854.—Called to see a child, aged seven months; was in usual health yesterday—taken ill, during the night, with fever, some bronchial disturbance, and, as the mother supposed, threatened with convulsions; I find the child this morning with hurried respiration—cough, frequent pulse, hot dry skin, and under a heavy stupor, as if either about passing into convulsions, or as having but partially recovered from one.

2*d day*—Condition much the same as yesterday; pulse 160; cough, mucous rattle, stupor continues.

3*d day*—All the symptoms aggravated, and the child appears to be sinking.

4*th day*—Has rallied slightly—pulse 140—recognizes its mother.

5*th and* 6*th days*—Very little perceptible change from day to day; during two days past, however, there has been an œdematous condition of the parts about the neck and suspension part of the chest; but disappearing.

7*th and* 8*th days*—sinking; and 9*th day*—died, having one or two slight convulsions during the day.

This was a case wherein, as I have supposed, there was a *well marked* invasion of all the important vital functions *at once*, by the catarrhal disease. The oppressed condition of the brain seemed to remain very uniform during its whole history; while the bronchitic symptoms proceeded steadily *pari passu*, until the fatal termination. Perhaps it may be proper to state that the treatment consisted in the use of extensive counter irritation—calomel and ipecac—antimonial solution—anodynes of dover, pulv.—the chlorine mixture—mucillaginous drinks—cold to the head. For two days the little fellow had a troublesome diarrhœa—subsequently a degree of torpidity of the bowels almost impossible to overcome by ordinary or extraordinary means. And it will be observed that a prominent feature of the Epidemic Meningitis, as described by Ames and others, is a *persistent costiveness.*

The second case is quite distinct in many respects, as to prominent features, and yet sufficiently correspondent to give evidence of essential unity of nature.

Feb. 9, 1854—Called to see a child, aged 8 months. Has, as briefly said by the mother, "*a bad cold*,"—slight cough—some febrile symptoms, restless and fretful, and for two days the case did not differ materially from this mild character; but notwithstanding supposed judicious treatment, about

3d or 4th day—Put on the features of a severe, well marked case of Bronchitis—cough—mucous rattle—much pain, especially evinced in cough—pulse 150; but thus far, no appearance of brain disease.

4th, 5th, and 6th days—This critical condition continued with little apparent change.

7th, 8th, and 9th days—Frequent but slight convulsions; *but, in other respects, there seems to be a decided improvement;* the acute bronchitic symptoms yielding; and on the

10th and 11th days—The little patient had the appearance, in almost every respect, of passing into regular convalescence; breathing natural, cough slight, and expectoration easy—pulse fallen down to 120.

12th day—Pulse run up again to 160—irregular paroxysms of fever—extreme restlessness; and on

13th, 14th and 15th days—This restlessness and tossing of the limbs became *well marked chorea*, and *15th day* died.

During these three days there was also a very peculiar appearance on the hands and feet, at first showing as a slight abrasion, but increasing to an appearance of chapping or cracking, as if there was an extreme tension, and the cutaneous tissues were gradually yielding to the internal force, and yet there was no tumefaction. After the symptoms of meningeal disease, as exhibited first in the convulsions of the seventh day of the case, and afterwards in the chorea, there was great torpidity of the bowels; and such evacuations as were brought away were of a *dark Brunswick green* color, and *slight* in quantity; an appearance, especially as to color, regarded by some writers as pathonomonic of Hydrocephalic disease. It is also to be remarked that the disease did not exhibit any perceptible invasion of the brain or its envelopes, until, in other respects, the case seemed to approach convalescence; and yet with every appearance of having passed the crisis, is passed on surely and rapidly to a fatal issue.

Since writing the body of this article, my friend, Dr. J. L. Drake, has related to me the history of a few cases of Ca-

tarrhal Fever, which were under his observation and treatment during the past winter. So remarkably similar in most of their features to the first given, as almost to appear repetitious of the same cases, and ceatainly to strongly confirm the view taken of the nature of the disease.

Cholera—its appearance in Dayton in 1854. *Read before the Montgomery County Medical Society, at its August meeting,* 1854. By J. A. Coons, M. D.

As the time for getting up this article has been very short, I shall present a few facts, more with a view of bringing the subject of cholera before the society, than of making a long regular article. There are few if any subjects in medicine of more interest to the profession at this time than cholera. About the 21st of June last, there came to the residence of Mr. A., a respectable German (living on east third street in this city), some friends from Cincinnati, where cholera was prevailing. The visitors remained several days, when one of them was slightly attacked with diarrhœa, which lasted but a short time—the patient recovering without the use of medicine. In a few days after the visitors returned to the city, two young men boarding in Mr. A.'s family were attacked with cholera and died in a few hours. One by one, the family (and those in attendance) were taken and died until eight deaths occurred in the house, all having died that were attacked in the house, except Mr. A.'s wife, who was removed to the hospital and recovered. This family were members of the German Methodist Church, and were kindly visited and nursed by persons of that denomination; many of whom took the disease in a short time after visiting the house, and nearly all died that were attacked. About twenty cases of cholera occurring in different portions of the city (including those at the house), could be traced from the one point on Third street.

There is a small brick house, poorly ventilated in the eastern portion of the city, where the mother took cholera after nursing one of her neighbors with the disease. Her family with those that came to nurse, numbered seven, and in less thirty hours they were all attacked with disease except one child. In another part of the city, the disease made its appearance in a two-story brick house, and there were five deaths out of six inmates. These three houses already

named, were all occupied by Germans, and were very imperfectly ventilated. That peculiar horror that Germans have of fresh air (and Dutch Dr's. especially) was fully manifest in two of these, and partially so in the third. Closed doors and windows, with an application of feather beds on both sides of the patient, constituted the preliminary treatment in the family where five died out of six. Mrs. K. was taken with cholera on Jefferson street; she was kindly nursed by Mr. C. and wife. The next night they were both attacked, and died after a short illness. A brother of Mrs. K. came to nurse and attend her. After his return to the country, he was taken with cholera and died in a few hours. Mr. C.'s mother-in-law came from the country to wait upon his wife, —in four days after, she also died from cholera. None of these houses were thoroughly ventilated. Not long since, a lady came from Chicago to Eaton, Preble Co., O. she was there but a short time, until she was attacked with cholera and died; in a few hours after, two of the boarders at the house where she died were taken and died also. From here the disease spread over the town, and was quite malignant. In June, 1849, Mr. B. came to Dayton from Liberty, a small village in this county, to attend the funeral of a friend, who had died with cholera. He returned home, and in a short time a small daughter of his took cholera, and in a few days five or six of the family were attacked, including Mr. B. From this point the disease spread over the village, and but few places suffered worse in proportion to the population than Liberty. In this same town there was a family living in a filthy log-house, illy ventilated; they were all attacked with cholera, and three died. A brother-in-law came from the country to assist the family; after remaining in the house a short time, he took the disease and died. Another friend visiting the family died also—making five deaths in the house. Mrs. S. came to Liberty same season, to attend the funeral of a relation; she lived at the Infirmary about three miles from town. A short time after returning home, she took the disease and died; after which several of the inmates were also attacked. There were country people in town every day, but none took the disease, except those that were visiting sick friends, or attending funerals.

Above I have given several cases of imperfectly ventilated houses, with the results. I shall now give a short history of the Dayton City Hospital, in favor of free ventilation. This institution, under the care of Dr. H. G. Carey and myself, is

situated on an eminence overlooking the city, and is well constructed for securing the advantages of perfect ventilation. The doors and windows have been kept constantly open night and day, since the appearance of cholera in the house, except when raining. There have have been over thirty cases of cholera treated in this institution since the 21st of June last—have been some cases on hand all the time, and as high as thirteen at one time. And although we have had the disease in all its forms and stages, there have been no other patients attacked, except in one instance. All the nurses, family, and other persons visiting and attending friends, escaped, whilst in those houses already named—poorly ventilated—visitors and nurses particularly, were almost invariably attacked. At the end of the first month, there have been 27 cases admitted into the house (cholera); 9 died of cholera, 1 of gastritis, 14 discharged, and 3 remain in the house. Two of the nine received no treatment, dying in a few minutes after being admitted. Our treatment has been about the same from the commencement; and, from the results, we have but little disposition to change it. When a patient is admitted with the disease, who is vomiting and purging, or either, we give a powder, (modified to suit the age and condition) composed of morphine ¼ gr., act. lead, 12 grs.; cayenne pills, 3 grs.; Calomel 8 grs; camphor, 6; and if the discharges are not checked in half an hour, the powder is repeated; and if they still continue half an hour longer (which seldom is the case), we give small quantities of calomel, act. plumb., morphine, and camphor. All these powders are given in a half table spoonful of mucilage, composed of strychnine, igr., turpentine, ℥ss; gum arabic water, ℥ss. After the discharges stops, we continue the strychnine mixture, in half table spoonsful doses, about every fifteen or thirty minutes, until reaction comes on. At the same time we are administering the above, we use mustard and turpentine to the bowels, extremities, and spine, and merely use friction enough to relieve cramps; small lumps of ice are kept in the mouth, and some swallowed to allay thirst. As soon as reaction comes on, all active treatment is withheld. There was a boy admitted into the house, aged about 14 years. He had been attacked about twelve hours previous,—was cold and pulseless—almost insensible—*skin dry*. After the usual treatment had been tried for two hours without benefit, he was placed naked upon the floor, and cold water from the well dashed upon his spine; he was then wrapped in a blanket and placed in bed, and in a short

time reaction came on and he was laughing and talking with the nurse. In 1849, I tried cold water upon a boy under similar circumstances and with like results. I also applied in in several cases where the patients were *wet and clammy*, but without benefit. From what I have seen of the cold water treatment, I would use it in any and every case of collapse where the *skin is dry*, and in no case where it is wet and clammy. I believe that cholera is *contagious*—and that the greatest external preventatives are *perfect ventilation* and cleanliness; as the atmosphere appears to have the power of so diluting the virus as to rob it of the effects it has upon the system when inhaled in a concentrated form. The facts above stated will sustain this conclusion, and they are only a few of what might be given.

MILTON, May 18th, 1854.

Editors Lancet:—

GENTS:—The Lancet for January last contains an article under the head of CLAVUS PEDOMANUS, from the pen of Prof. J. W. Mighels, instructing the obstetric practitioner in the art of repositing the cord, and other members, prolapsing before the head, in the progress of labor. Country practitioners here, pursue a very similar mode, as indicated by Prof. C. D. Meigs, a number of years ago.

A piece of muslin or tape, half an inch in width, is folded back at the end, and sewed at the sides, so as to surround the cord with suitable firmness, and make a similar pocket at the other end, but folded in the opposite direction. This is to be placed round the most pendant portion of the cord, and one pocket introduced into the other. Then by any suitable instrument, introduced into the pocket, the tape and cord may be carried high up into the uterine cavity, and the instrument withdrawn. This latter may be a metallic male catheter, a piece of whalebone, or (what necessity has suggested) a piece of tough wood, of suitable size, and made smooth. If a great length of cord should come down, two or more pieces of tape may be put round it at suitable places, and all the pockets being introduced into one, the cord may be reposited at once in the fundus of the uterus. It is obvious that this practice is equally applicable to prolapsed limbs, if they should ever become sufficiently annoying to justify interference. Neither difficulty nor want of success has been encountered in this practice, so far as I am aware.

Yours, Respectfully, V. KERSEY.

Correspondence.

PARIS, March, 1854.

[CONCLUDED.]

Editors Western Lancet:

I ought to have given you a word or two on the Clinique de la Faculte, before that of Beaujou.

It is one of the most unhealthy hospitals of Paris, its mortality being very great, owing to its close and confined position. It has two clinical professors, M. Melaton, of surgery, and Paul Dubois, of obstetrics. I can not speak in terms too high of M. Melaton. He is the only surgeon here who has impressed me with the idea that he does not like to cut, for the sake of the operation. I do not wish you to understand me as saying that I think the surgeons are utterly devoid of all regard for the welfare of the patients, but that I think M. Melaton will not operate unless there is a strong probability of benefit, or entire relief. In one word, he is a conscientious man.

As a lecturer, he is the best here, not excepting M. Trousseau. His style is simple, and clear, while his lectures are very full and comprehensive.

As a pathologist, he is unsurpassed by any of his colleagues or compeers. He occupies each lecture with the discussion of some one disease, a case of which is in his wards. He is the most instructive lecturer here. His amphitheater is always more than full.

He is at present about forty-five years of age, and if he lives will yet be the first surgeon of Hotel Dieu or La Charite. He has published lately a work on surgery, which for an elementary one, as it is, occupies a large share of the attention of the surgical part of the profession

If he makes errors in diagnosis he always acknowledges them. For instance: I saw him diagnose an enlarged testicle to be an encephaloid disease of that body. He removed it, and on cutting the tumor a large amount of pus escaped. The disease was nothing more than an abscess of the body of the testicle.

This course is not always followed here. In his lectures on cases he shows an intimate knowledge of all that has been written, and all the operative processes. His lectures on sanguinolent tumors of the cavity of the female pelvis inter-

ested me very much. He first described this disease, I believe. The impresssion will be made at first sight that M. Melaton is a very good and conscientious man. Of all surgeons he has the least of the ad captandum manner.

Paul Dubois is the *accoucheur* of the Empress, Dean of the faculty, and professor of clinical midwifery. His father was the accoucheur of the Empress under the first empire, and the present Emperor who is "*the nephew of his uncle,*" appointed the present P. Dubois accoucheur to his wife.

He lectures three times a week. He always seems to me to lecture because he is forced to do so. Indeed I do not think he feels much pleasure, judging from his manner. His reputation in his speciality is very great. The lying-in-wards of this hospital receive yearly about three thousand patients. The students are admitted to it freely, and have the privilege of *touching* whenever they desire it. They can obtain permission to deliver women by inscribing their names. Labors are going on every day, and whether the student touches or not, he has the privilege of *seeing* the whole process. The women are exposed entirely at the time the head begins to pass the valva! I do not understand the propriety or philosophy of such an exposure.

These are the only two medical men connected with this hospital.

A Description of hospitals Cochin, Enfants Malades, St. Antoine, St. Eugenie, Mide, Lariboisiere, beside several others, would swell this letter too much. I will therefore content myself with giving you a few brief details of that great special hospital St. Louis. It is the next in age to Hotel Dieu, and is reserved expressly for cutaneous diseases, with the exception of the surgical wards of Profs. Malgaigne and Denourilliers. It has beds for over eight hundred patients. Its physicians are M. Cazenare, Devergie, Gibert, Hardry and Bezin. Each one of these gentlemen have very large services, devoted exclusively to cutaneous diseases. All the various forms of this slow and troublesome class of affections are to be observed. The wards of M. Cazenare have constantly a great many cases of lupus in its different forms. I have seen several cases in which the nose has been almost entirely destroyed by this affection and improper treatment, cured by Cazenare. The local treatment pursued by Cazenare consists of an ointment composed of 180 grains bioduret hydg., oil and Axunge of each 3j. ss. The part is to be painted with this once in every ten or fifteen days. The

patient takes baths and the ordinary tonic deterants internally. The great benefit of the ointment is that it does not cauterize profoundly, and causes no scar. I have seen cases improve rapidly with it. But why need I specify particular classes of skin disease as abounding in this great hospital.

I may as well say for once, that all kinds are to be seen. No better field in the world can be found for their study. M. Cazenare, you know has made his reputation in this speciality. He diagnoses very rapidly. He has an immense practice in the city. His course of clinical lectures will begin in a month. The teigne or favus is treated very successfully by the epillatory process, or pulling out the hair, and applying unguents of corrosive sublimate, and sulph. cupri. M. Blezin is the author of this treatment.

Of M. Derergie, I can only say that every one will be pleased with him. He is very profitable and instructive, as he delivers brief remarks at the bedside of each patient. His book on diseases of the skin is superior to that of Cazenare's as it is fuller. You know that the school of this hospital headed by Gibert and Cazenare opposes the doctrines of M. Ricord, on syphilis. So far as treatment is concerned they agree with Ricord.

The consultations of this hospital are very large. I have seen as many as two hundred patients apply to M. Cazenare on the day of his consultation. This hospital is situated at such a long distance from the school of medicine that many do not visit it.

The consultation for patients with itch is held on Wednesdays. The treatment is as follows: The men and boys are all stripped in a room, and rub each other for an hour with common hard soap, and then enter a warm bath where they remain for some time. After leaving the bath they rub each other with common sulphur ointment. If they are not cured after this process, they are subjected to it again. This is what is called curing the itch in an hour. It certainly is very effective, and moreover amusing to the looker-on. No one should stay here for any length of time without visiting this hospital frequently. The diagnosis of each case is written on the card hung up at the foot of the bed of each patient. In one word, if one does not learn the diagnosis and treatment of cutaneous diseases at this hospital, it will be his own fault.

Of Professors Malgaigne and Denourilliers the surgeons of this hospital I have but little to say to you. Malgaigne has

all the traits of a comediene in him. I sometimes think he has greatly mistaken his profession. You very well know his great reputation. As a lecturer, he is the best in the school. Being a fine scholar, he occupies the first position as a medical *critique*. He has written a work on operative surgery, which is at present the first authority. In addition he has edited the works of Ambrosi Paro, and contributed many articles of great interest on surgery to the journals. He is very peculiar in his manner at the bedside, and keeps a stranger almost constantly in a state of laughter. His course of lectures during the past winter was occupied largely with the discussion of hernia. He devoted altogether nearly two months to it. He is a poor operator. Prof. Denourilliers lectures on anatomy in the school. He delivers a clinical lecture once a week at St. Louis. As a lecturer on anatomy he is minute and clear. He operates well, and his service generally contains many cases of interest.

I ought not to pass by in silence that excellent class of persons connected with almost all the hospitals—the Sisters of Charity. They are truly doers of good works on earth, and deserve all the praise meted out to them. They nurse the patients with all the care and attention of true sisters. Intelligent, the physicians always find them capable of carrying out the directions. In one word, the hospitals here are well arranged, and comfortable, the patients are quiet and orderly, submitting to treatment with a readiness and docility not generally seen in our hospitals at home. It is the rarest thing to see a patient refuse to take the medicine ordered for him, or to submit to an operation.

The respect for the opinions of the surgeons and physicians is very great, and hence is explained the reason why so many patients are found for the trial of all new operations, and the effect of all new remedies. Not the least restraint and restriction is placed on the medical staff in treatment, and no ignorant, stubborn and puffed-up board, governors or trustees, are found to pass their prohibitory criticisms and opinions on this or that treatment, or this or that surgeon or physician.

As well conducted as the hospitals are, they are wanting in some essential points. Especially is this true, so far as no regular reports of the progress of cases are kept. Again, in some of them, the stranger and student meets with great difficulty in not knowing what the nature of the disease is before him, from the fact that several of the physicians pass the beds without stating its diagnosis.

But taken altogether they present one of the finest fields in the world for the study of diagnosis. I am not prepared to say as yet, whether the opportunities here are better than those of Great Britain or those of Germany. One thing is certain, that it is difficult I think to believe that they can be surpassed. One great advantage of the hospitals is the system of private instructions which are given by the internes. They are very capable and qualified, and for foreigners who only remain here a limited time, present the greatest sources of instruction.

The stranger is treated with all the courtesy and kindness for which the French people are so distinguished. The mere fact of one being announced as a stranger is a sufficient guarantee for him to be well received and treated.

The utmost liberality exists, and the doors of all libraries and museums being opened to those who seek instruction. The simple presentation of a passport, will obtain a ticket to each and all the hospitals.

As I have said, a notice of the other hospitals would swell this letter too much. But a word of Ricord whose reputation is identified with hospital Midi, your readers are well acquainted. His star is still high in the scientific heaven, and with all the efforts of his opponents to darken and overshadow it, it shines still the brighter. He looks like a man of forty, though I believe he is over fifty. A man of great wit, and versatility, he keeps all, even his patients, in a laugh during his visit. He is exceedingly affable and courteous to Americans, and is pleased to explain his theory, and treatment on all occasions. He is a beautiful operator, and no doubt can be entertained that if he had devoted himself to surgery, he would have shone as brilliant as he does now. His popularity in and out of the profession is immense. He is surely the most talented and witty man in the whole profession. His wards are full of male patients all the time. The female patients with venereal disease are sent to Lourcine. Vidal de Cassis author of a work on operative surgery, and one on venereal diseases, and Puchet, are the other two physicians of this hospital.

St. Marguerite, which some of your readers will remember, has been changed into a children's hospital, and has in consequence of a large sum given to it by the Empress, taken the name of St. Eugenie. It has been thoroughly repaired, and repainted, and is a comfortable house for the large number of little patients who have entered. It is intended for the

children of the poor of the eastern part of Paris, who suffered much from the great distance of the Enfants Malades. There are now two large and healthy hospitals for these little sufferers. I have much to say to you of the treatment, and peculiar forms of disease in these two hospitals, but must reserve it for some future occasion.

The new hospital Lariboisiere is just finished. It is very large, well constructed, well ventillated and finished inside and outside in the richest style. It is situated at the northern part of the city, and is therefore a long distance removed from the School of Medicine. Chassaignac and Voilmeier are the surgeons; Tardieu, Becqueret and Hervez de Chegoin, are the physicians.

There is so much spread out on the medical map here, that the student and observer must decide what he wants, and divide his time accordingly. But no matter what hospital one may visit, something of interest will be found. All French students are required to serve as externes in a hospital for a year before receiving a diploma. Before a student can apply for the concours for the place of interne, he must have served as externe. The internes hold their places for four years, provided that they pass an examination at the end of each year. They are forced to study all the time, for at the end of the first, second or third year, if they do not pass their yearly examinations, they lose their places.

At the end of the fourth year, two prizes are offered to the two best who pass a certain examination instituted for these two prizes. The first one is the "gold medal" which entitles the receiver to continue two years longer in the service of any hospital he may select. The second prize is a "silver medal" which is only considered as a mark of honor.

The Internes receive one hundred dollars yearly, their lodgings and boarding. No recompense is given to the Externes, who only act as dressers.

The salary paid by the general administration to each physician in service in the hospitals, is two hundred and forty dollars per year; the surgeons receive three hundred and sixty dollars, as they have to furnish all their instruments.

The diet of the patients in all the hospitals is prescribed by the "General Administration," and is divided into four parts. 1st. Those who received nothing, or diete absolue; 2d, simple diet, or a soup bouillon; 3d, soups or broths; 4th, solid food, which is subdivided into five parts. The physicians are forced to order the various articles which are enu-

merated under the above various heads, a history of which is too long for this letter. As a general observation, I think that there is a great fault in the small amount of good food and stimulants which are ordered by the physicians. I have seen, more than once, a patient suffering the greatest prostration and debility from typhoid fever, who, for weeks, was allowed nothing but a bouillon (a soup) twice a day, with some Bourdeaux wine.

A line or two on the number of private courses given in the Ecole Pratique and its neighborhood during the entire medical year. Anatomy, general, descriptive surgical and microscopic is taught by some dozen of persons, who, as a general remark, may be said to teach well. Indeed I am sure anatomy is taught no place in the world as it is here. A good number of the lecturers give few courses, while the rest charge a small fee. Operative surgery is also taught by several, both at Ecole and Pratique, and at Clamart. The fees for these courses are not large, taking into consideration the number of subjects which are included.

What is Ecole Pratique? some may ask. It is the dissecting rooms of the great school of medicine. It has three amphitheatres, where those who desire to lecture on anatomy, or any other speciality, may do so. During the winter and summer, also, lectures are going on in it from 10 in the morning until 9 at night. A student, inscribed on the book of the dean, can dissect the whole winter at the Ecole Pratique or Clamart, by paying six dollars. This sum covers the expense of all subjects he may need. The Ecole Pratique is regulated by the faculty; that is the demonstrators (or aid d'anatomie as they are called) are compelled to enter a concours appointed by the faculty to obtain the places. Clamart is under the sole control of the administration of the hospitals. It is a neat, clean, airy and well-regulated place. Room and conveniences are afforded for eight hundred to dissect. It is under the control of a director. The demonstrators of anatomy give instruction and receive their places only after having passed a jury appointed by the general administration and composed of the surgeons and physicians of the hospitals. Dissections begin in it the 1st of November and continue until April 1st. Some fifteen hundred subjects have been used during the past winter. It is a delightful place for the purpose intended. It has a fine museum of anatomy. It is clean, dry and warm, while Ecole Pratique is the very op po-

site. I would advise all to make their dissections in it in preference to the latter.

In addition to the courses on anatomy which are given by private lecturers, there are courses on Materia Medica, General Therapeutics, Diagnosis, Diseases of the Urinary Organs, Diseases of the Skin, general Pathology, Diseases of the Eye and Ear, Obstetrics, besides special parts of Surgery. The majority of these are free, and those for which a fee is demanded, are richly worth it. Then the student has the advantages for the study of Anatomy and Surgery, of the museums of Orfila, which contain a beautiful collection of human and comparative anatomy. This is open from early in the morning until late in the evening. Again will be found in the museum Dupuytren, which is open to all, excellent opportunities for the study of healthy and morbid anatomy.

Advantages are taken of all these; for the courses are all well attended, and the museums well filled. To those who desire to read and study in the immense library of the school, the door is open, the room warmed, tables, chairs, pen and ink ready, with a polite librarian, willing to hand the books called for. I have been in it several times, and have always found a large number reading in perfect silence.

Then there are special courses on the Eye, by Sichel and Desmares. The latter holds a clinique, makes remarks, and operates, three times a week, for which he charges the student a small fee by the month. He has over fifty patients at each clinique. The opportunities for diagnosis are excellent. He is very strong in the diagnosis of the various diseases of this organ. His general operations are well performed, but I do not think he operates for cataract as well as Prof. Nelaton. I am forced to say that no one here equals M. Nelaton in this operation. The clinique of Sichel is also crowded with patients. He operates oftener for cataract than Desmares. Both are bringing out works on their speciality.

To those who desire to study mental diseases, the great hospitals of Salpetriere and Bicetro are open. I have much to tell you concerning these two hospitals, but the undue length of this deters me.

In addition to all that I have named, there remains the winter and summer course of the school of medicine. Its doors are open to all. As your readers are, however, familiar with the reputation of most of the Professors, I shall not say much.

As the course of studies is five years, no one of the Professors finishes the programme of his branch in less than this time.

They all sit while lecturing, and make use of notes. The amphitheatre is very large, but is badly constructed for sound.

Many interesting courses are delivered in the College of France and Garden of Plants. Those of Mr. Berward, Coste, and Dumas may be mentioned as of great interest for Medical men. At the Garden of Plants, M. Serres delivers a course on Anthropology. Milne, Edwards, and others also deliver courses on the natural sciences, which are also of great interest. I must not forget to mention the private courses of Mr. Charles Robin, on the microscope. He is agrege of the faculty, and now, at thirty-two years of age, he occupies one of the highest positions in the profession. He has written two books, one on Pathological Chemistry, and one on Vegetable Parasites, for the former of which he received the prize of the Academy of Sciences, this year. He gives two courses, one theoretical, in which he gives a description of the histological tissues; the second one is practical, in which he shows them all under the micrope in addition to all morbid and malignant growths. No one who follows his courses can at all have any doubt in regard to the appearance of cancer cell, as differing from all others. The time has assuredly arrived when more attention should be given to microscopical researches. Assuredly the day is not far distant, in truth it may be said to have arrived, when it can only clear up a diagnosis in many cases that must otherwise remain doubtful and obscure. Indeed, at present, there remains no means of making a true differential diagnosis between cancerous and other tumors, but the microscope. I have taken the courses of M. Robin, with my friend Prof. Judkins, and can assure all, who feel an interest in the microscope, to do likewise, promising them that they will find him a gentleman, and highly accomplished in all that concerns science. The difference between the older and younger part of the profession is, that the latter makes here a profound study of physiology and anatomy, while the former have received their opinions of physiology as they were studied and taught a half a century ago, oppose the present theories and facts on these subjects. M. Velpeau, especially, and, in one word, all the old surgeons and physicians, are strong opponents of the microscope. M. Trousseau, however, is a notable exception to all. M. Robin has shown that the theo-

ry in regard to the matter effused into the lungs, which causes acute or galloping phthisis, is wrong; in other words, that it is not tubercle, but simply pus in an altered condition. All of the young physicians and surgeons, of any note here, study the microscope attentively. The results of investigations now going on with it, joined to the philosophical researches of M. Bernard, will produce a great change ere long, in the treatment of disease, as well as in pathological anatomy.

The system of medical education is certainly of a high order. It seems to me that it is not equalled. Every student is required to show a diploma of bachelor in sciences before he can inscribe his name on books of the school. This is a sure guaranty, that his preliminary education is all that it should be. With the five years of study and attendance on the lectures in the school, and the great clinical advantages of the hospitals, the majority of students must be well prepared to practice medicine when they have received their diploma.

The admirable system of medical education here is, however, as you are well aware, a government institution; that is, it is under the control of the minister of public instruction. I am slow to believe that a high order of medical education is inconsistent with democratic institutions. At present it would seem so, but we must believe, for the ultimate position and good of our profession, that it is not in reality true. The seeds of reform sown during the last few years, must bring forth some fruit worthy of admiration.

As a profession, we do not occupy the high position we ought to do in Europe. The reason of this is owing to the fact, that it is known that the diploma is prostituted to base purposes, and that it is not, as here, the evidence of qualifications and attainments. Something must be done. It strikes me that it is with the young portion of the profession to change our present defective system, full of so many evils, and without, I was about to say, one virtue. These opinions have not been formed since my stay here, but have been only confirmed past all doubt. The study of medicine is, with us, a matter of three years, and, in too many cases only of one. Here it is a subject of hard study for five. What a difference. Our students are, in the main, as rich, yes, I am sure they are richer, than the body of French students, and could afford, so far as means are concerned, to pass as long a time in their studies. A French student lives on a small amount, and works just as hard as if he had an abundance of means. But, my dear sir, I do not wish either to inflict a burden on the

the patience of yourself or readers, by what you may be pleased to call trite and hackneyed reflections on the evils of our system of medical education. I could not, however, let the occasion pass without saying what I have written above. We must, by one means or another, instill into the minds of students and the profession a greater love for severe study, eminence, and renown, and a lesser desire for the mere pelf which the poorest and least qualified may make out of our great profession.

With too many, the idea of a livelihood is the prominent point. Here, the idea and desire of distinction is the great one. Medical men cannot be more respected than here. They occupy places by the side of the greatest. With us I believe the same results may be brought about. The republics of antiquity regarded our great profession as monarchies and despotisms now regard it, and certainly it is no pleasant or consoling reflection for the lover of free principles and free institutions to find the modern republic, the greatest the world ever looked on, entertain the opinions that the mass of its people do of it, and reward it as they do.

The fault is with ourselves. It is with the profession to bring about the great wished for change and reform. We have the freedom, the originality, and the freshness of mind and thought, and all we want is the severe training which close study will give us. We have more—too much of that desire prevalent in the commerce in the general business of our people—a res less anxiety to clutch the goal of fortune in the early years of life. We want repose, which affords time for severe study, whose fruits are seen in the mature years of life in great scientific attainments and researches.

Of Paris as a place affording advantages, I can speak in strong terms. Everything is found here. Men profound in all branches, capable of teaching and having at hand all the materials and means for illustration, easy of access, and willing to impart instruction. It seems to me that those who have seen practice in some one of our hospitals, or who have been engaged in general practice, will profit the most by a stay here. This opinion is based on the fact that they are better prepared to judge and compare treatment than the opposite class. Again, knowing their deficiencies, they are better prepared to give their attention to those specialities which most interest them.

Some one made a true remark when he said, "Go to France to study diagnosis, and to England to study practice."

Here is the point of all others to learn diagnosis and pathological anatomy. The greatest delight of many is to make a clear diagnosis, and to see it verified by the post mortem. They are certainly unequalled. In anatomy and surgery, too, their knowledge is above all praise. In this connection I have many amusing and rare matters to tell you; but see, my friend, the length of this, and excuse me.

As for the practice of medicine, I can say only that it is very defective. As therapeutists, they are inferior to us, or the English.

Before I see you, I intend to pass some time with Prof. Judkins, in London, Dublin, and Edinburgh. I shall write you from each of those cities, and give you my observations on the advantages they possess. I must now bring this long letter to a close, or I shall be too late for the mail. Hoping that you will pardon its length, I am

Yours respectfully,

JOHN A. MURPHY, M. D.,

Reviews and Notices.

The modern treatment of Syphilitic Diseases, both Primary and Secondary; comprising the treatment of Constitutional and Confirmed Syphilis, by a safe and successful method; with numerous Cases, Formula, and Clinical Observations. By Langston Parker, Surgeon to the Owen's Hospital, Birmingham. From the third, and entirely re-written London Edition. Philadelphia: Blanchard & Lee. 1854. pp. 316.

Dr. Parkers treatise on syphilis has been before the profession for a number of years, and is generally regarded as a sound and judicious work. We are of opinion that it embodies an accurate view of the various intricate questions connected with syphilis, and a judicious course of practice. The author appears to be free from any special *theories*, and is, therefore, a better judge of those advanced by others. The young practitioner will be rewarded by a careful perusal of Dr. Parker's book. For sale by Moore, Wilstach & Keys.

Progress of Medicine.

An Account of Seventeen Cases of Parturition in which Chloroform was inhaled with pernicious effects.

Dr. Robert Lee read before the Royal Medical and Chirurgical Society an account of seventeen cases of parturition in which chloroform was inhaled with pernicious effects. In the cases related, the injurious effects of the inhalation of chloroform were as follows: In seven cases, insanity and great cerebral disturbance followed its exhibition. The use of the forceps was rendered necessary in five cases. In two, the contractions of the uterus were arrested, and the operation of craniotomy was performed. Peritonitis or phlebitis ensued in four cases. Epilepsy or dangerous fits of syncope supervened in two instances. Many analogous cases had been confided to the author by friends; and public rumor swelled the size of the chapter of accidents; but he wished merely to give accounts of those which had come under his own observation. The author strongly animadverted upon the levity and thoughtlessness which had accompanied the use of this subtle and dangerous poison. Soon after its discovery, before the amount of its power, and even its composition, had been fully understood, he had been horrified by the announcement of its application to midwifery, and he then prophesied that deplorable results would ensue—a prognostication which experience had unhappily proved to be correct. It was natural that women, doomed to bring forth their young in pain and sorrow, should seek every means by which they might palliate the anguish they suffer; and instances related in which the process of parturition had been effected without pain, served to render nugatory the unwelcome admonitions of those who pointed to the evils that might occur. The author expressed his opinion, that the most serious effects which arose from the inhalation of this agent, were first, languid and inefficient uterine contractions; secondly, a greater susceptibility to the risks that arose from inflammation and fever. In spite of the fact, that grave and experienced physicians had expressed their concurrence with the author's views, yet the question whether chloroform should be inhaled had become almost extra-professional; as silly and ignorant women of fashion chose to set the example

of using it, the cause of science and humanity thus being in the hands of the most weak and frivolous portion of the community; and, as there was a systematic concealment of the truth by the physicians who used it, he feared that young and inexperienced mothers would still be lured to their destruction. In conclusion, the author expressed a hope that his essay might tend to rescue the profession from the dominion of an ingnominious and disgraceful practice.

Dr. Snow regretted that Dr. Lee had indulged in such severe remarks as those which occupied the concluding portion of his paper, more particularly as he felt great admiration for the talent displayed in the essay, and great respect for the honest and manly spirit that caused the author to attack anything which he considered injurious either to a patient under treatment, or to the cause of science generally. Dr. Lee certainly had related the history of several distressing cases; but, in his (Dr. Snow's) opinion, not one of the symptoms described could be referable to the exhibition of chloroform. Dr. Lee must have known that chloroform was a most volatile spirit, and that half an hour after its application no traces of it could be found in the system; and yet, in some of the cases related it was stated, that inflammatory action had arisen two or three, and even as much as fourteen days after labor. How could the evil effects described be laid, with any show of probability, to the noxious influence of chloroform? Some of the symptoms mentioned in the cases might be naturally referred to hysteria. Dr. Lee had stated, that the chloroform checked the uterine contractions; this statement Dr. Snow could contradict, as, in the many cases in which he had superintended its employment, he had continually felt the uterus contracting firmly. The amount of the spirit inhaled in obstetric practice was trifling, compared with that taken during surgical operations. One great benefit derived from its application was, that it tended to do away with the use of laudanum; and Dr. Lee ought to hail this fact with joy, inasmuch as the time that the former drug remained in the system was so short in comparison with the latter. In conclusion, Dr. Snow expressed his opinion, that, notwithstanding the recorded cases of death having occurred from the use of chloroform, which now amounted altogether to about thirty-seven, it had been the means of saving many lives, by preventing nervous excitability consequent upon severe operations.

Dr. Gream, with great respect to the learning of the author

of the paper, was of opinion that he had, in this, as in many other cases, preferred antiquated measures to modern discoveries, merely because the latter were modern; and had given a list of extreme cases. He entered into the question, as to whether uterine contraction was checked by the inhalation of chloroform; and stated, that when a large dose was given, it did so favorably when the patient was exhausted by a long and painful labor. He announced that he was only a recent convert to the practice of giving ether or chloroform in midwifery.

Dr. Merriman related a case where chloroform was administered during labor. Pain ceased, and he returned home for a short time. On being called again to see the patient, after a lapse of two hours, having been told that she was very ill, he was unable to find any trace of the child; and the systematic effect was so violent, that it was long before labor recommenced, the uterus having been temporarily paralyzed. She never recovered from the effects of the narcotic, and was finally removed to a lunatic asylum. This case had so alarmed him, that he had never since given his assent to the employment of chloroform.

Dr. Chowne said, the subject had been so talked about publicly, that it had become extra-professional. He expatiated lengthily upon the history of chloroform, remarking that, in his opinion, it had been received as a professional remedy without sufficient inquiry having been made into its properties. He instanced as an example, the first check given to its unconditional application, which was owing to a death which had occurred when the patient was undergoing the operation of having a tooth removed. Disease of the heart having been discovered in that case, a rule was laid down that chloroform should not be administered when an ailment of that organ was existing. Dr. Chowne gave some more instances in illustration of his opinion, and finally referred to Dr. Merriman's patient, whom he had seen; and stated, that the ergot of rye had been administered after the chloroform, without having any action on the uterus.

Mr. Carter said, that seventeen cases on which to found a decided opinion whether chloroform was beneficial or otherwise in midwifery, were not enough. He had frequently used it himself with no evil results, except in two cases, in one of which the patient was in a very asthenical condition. In the other case, death ensued while the woman was under operation. He reminded Dr. Lee that it was frequently used in country practice.

Mr. Ferguson stated, that being engaged exclusively in surgical practice, he was unable to offer any opposition to Dr. Lee and his statements; yet he wished to know how it was, that these terrible results described, of insanity, phlebitis, and prolonged syncope, did not occur after the inhalation of chloroform during surgical operations. He considered that Dr. Chowne had not drawn a sufficient distinction between surgical and obstetrical practice, as regards the use of this narcotic. He could not understand how paralysis of the uterus could be caused by chloroform, when fæces and urine were often forcibly expelled when the patient was under its influence, thus showing that it does not destroy involuntary muscular action. He expressed his opinion, that our experience in England of the good or evil effects of chloroform was far too limited for a decided opinion to be given on the subject; and referred Dr. Lee to the extensive use that is now made of it with beneficial results in the United States.

Dr. Lee, in reply, stated that there was a vast difference between the birth of a child and the extraction of a tooth, or a stone from the bladder, or any other surgical operation; the latter being dependent upon external manual action, the former being a work of nature, dependent upon nervous influence. The child is expelled from the uterus by regular contractions, and the exhibition of chloroform stops this action, as he had seen and as he had heard from competent persons, who had attended cases where it had been administered. Moreover, he wished to know what was the dose of the drug that should be used. It was a pretence, merely to sprinkle a few drops of the liquid upon a handkerchief, and hold it over a patient's nose—a process which he designated as "chloroform a la Reine." And when the forceps were necessary, how could the medical attendant apply them with any safety when the woman was lying writhing about on the bed in convulsions following the use of this deleterious compound? No—woman was to bring forth her young in pain and with sorrow. This was a Divine ordinance, doubtless founded with a wise and merciful intention; and he considered that the continuance of the discreditable and cowardly practice of seeking relief from a necessary suffering, by resorting to such measures as he was combating, would be fraught with danger to her, not only physically, but also morally.—*Med. Times and Gaz.*

Source of Hemorrhage in partial separation of the Placenta.

Dr. Mackenzie, in a paper read before the Medical Society of London, Dec. 17, 1853, pointed out that three different opinions prevailed at the present day respecting the anatomical source of hemorrhage in cases of partial separation of the placenta; the first affirming that it was principally or wholly uterine; the second, that it was principally or wholly placental; the third, that it was both uterine and placental. He further directed attention to the fact, that puerperal uterine hemorrhage, whether occurring in connection with partial or entire separation of the placenta, was generally considered to be principally venous, and he quoted passages from the writings of Drs. Simpson, Radford, Murphy, and Lee, in support of this statement. On reflecting upon these circumstances, he was led to believe that some light might be thrown upon the question by ascertaining experimentally the source of hemorrhage in an animal whose placenta, like that of the human female, was both decidual and fœtal. A pregnant bitch was accordingly obtained, which had nearly completed the full period of gestation; the uterus was opened, several placentæ were detached, and the following observations made: 1. On separating each placenta, it was found that blood flowed freely and continuously from the denuded uterine surface, increasing with the detachment, while none escaped from the detached portion of the placenta. 2. That the blood which escaped from the uterus was distinctly arterial. 3. On rupturing a placenta while still partially adherent to the uterus, that a small quantity of dark venous blood escaped from the torn part. Thus it would appear, that in the canine species, the source of hemorrhage in cases in which the placenta is partially detached is exclusively the denuded uterine surface so long as the placenta is entire, that the hemorrhage is of an arterial character, and that a small quantity of dark venous blood escapes from the placenta on being lacerated while still partially adherent to the uterus. The results of this experiment were not, however, deemed conclusive as to the source of hemorrhage in cases of partial separation of the placenta in the human female, on account of the different distribution of the veins in the maternal portion of the canine and human placenta respectively. Their anatomical peculiarities were briefly pointed out, and in the early part of April, 1853, the author had an opportunity of perform-

ing a more decisive experiment with the assistance of Dr. Sharpey. In this, the hypogastric arteries of the uterus of a woman who had died of internal hemorrhage during labor, and in whom the placenta was partially adherent, were injected with defibrinated blood, and the organ, as well as the vessels from whence the blood escaped, were carefully noted. It appeared, on injecting the hypogastric artery, that blood escaped freely from the torn utero-placental arteries on the surface of the uterus; that none escaped from the torn uterine veins, or from the detached portion of the placenta; and it was ascertained, that the blood was not injected with greater force than that of the heart acting under ordinary circumstances. The opposite hypogastric artery was next injected, with the following results: The blood escaped freely from the torn utero-placental arteries on the surface of the uterus; none escaped from the utero-placental veins; while, in this case, a small quantity escaped from the detached portion of the placenta contiguous to that which was still adherent. Repeated injections led to no other results; while it was particularly remarked, that the torn utero-placental arteries on the surface of the uterus were free from any plugging previously to being injected. Two things were thus clearly shown from this experiment: 1st. The readiness with which blood escaped from the torn utero-placental arteries when the hypogastrics were injected; and, 2dly. That these arteries had not been plugged by any coagula during life. Such facts, coupled with the results of the previously related experiment, and taken in connection with various clinical circumstances, appeared to the author to afford strong grounds for the belief that the principal source of hemorrhage in cases of partial separation of the placenta was arterial rather than venous, and uterine rather than placental; and he proceeded to consider the data upon which the opposite opinion had been affirmed. In doing so, he quoted the following passage from Dr. Simpson's writings, as containing a reference to the several grounds upon which the occurrence of arterial hemorrhage has been denied in all cases of partial separation of the placenta. "Uterine hemorrhage, after separation of the placenta," says Dr. Simpson, "in any of the stages of labor is not arterial in its character, because the utero-placental arteries are so long and slender as to become readily closed; 1st, by the tonicity of their coats; 2d, by contraction of the uterine fibres upon them; and, 3d, principally by the changes in their tissues produced by the mechanical rupture of their

coats, torn arteries being little, if at all, liable to bleed, and the placenta being separated by a true process of avulsion." With reference to the first statement, that uterine hemorrhage, after separation of the placenta, in any of the stages of labor, is not arterial in its character, the author observed that, so far as he was aware, it was one which was not only unsupported by any evidence, but directly at variance with many observations which he and other medical men had made. He referred to cases in which he had distinctly observed that hemorrhage occurring between the birth of the child and the complete separation of the placenta was of an arterial character; and he referred to the fact that the blood which escaped from the uterus of the bitch when the placenta was detached, was of a bright arterial color. With regard to the second point affirmed, that arterial hemorrhage from the uterus is prevented by the tonicity of the utero-placental arteries, he observed, that, while he believed this to be generally the case in a state of health and tranquillity of the circulation, that, under other circumstances, it might be doubted whether such was the fact. The third doctrine affirmed, that hemorrhage from the utero-placental arteries is prevented by contraction of the uterine fibres upon these vessels as they pass through and amid the uterine structure, was, in the author's opinion, completely invalidated by the well-known fact, that there is often no direct relation between the degree of uterine contraction and the degree or tendency to uterine hemorrhage; and he further appealed to the two following series of facts as being opposed to its correctness: 1st. That in several instances the placenta has been spontaneously or artificially separated from the uterus before the birth of the child, and, consequently, under circumstances in which contraction of the uterus could not take place without any hemorrhage supervening; and, 2dly, that when it has been attached to the os and cervix uteri, its separation has been effected, in many cases, without any particular hemorrhage resulting, although it is affirmed by some anatomists that there are few or no contracting fibres in the structure of the os and cervix uteri. The last proposition affirmed, that hemorrhage from the utero-placental arteries is prevented by the changes in their tissues produced by the mechanical rupture of their coats, torn arteries being little or not at all liable to bleed; and the placenta being separated by a true process of avulsion, was completely negatived by the author's experiments upon the pregnant bitch, for on detaching the placenta from the

uterus, and thereby lacerating or tearing through the utero-placental arteries, arterial hemorrhage was actually observed to follow; that is to say, having separated the placenta by a true process of avulsion, and thereby having torn across the utero-placental arteries, it was demonstrated that such proceeding was not productive of those changes in their torn coats which are assumed to follow such operation, and by which, it is alleged, arterial hemorrhage is prevented. Upon the whole, it appeared that two things were certain; first, that no necessary relation existed between the degree of hemorrhage and the degree of separation of the placenta; or, secondly, between the degree of hemorrhage and the degree of contraction of the uterus: uterine hemorrhage having been variously moderate or excessive under similar degrees of separation of the placenta, and similarly moderate or excessive under the opposite conditions of relaxation and contraction of the uterus. Could it, then, be doubted, that the absence or disposition to uterine hemorrhage depended, in many cases, upon other causes than the anatomical connection of the placenta with the uterus, on the one hand, or the contractile mechanism of this organ on the other? Or, further, that these were to be sought for in the occurrence of arterial hemorrhage, and the varying conditions of the utero-placental arteries, as modified by the general condition of the arterial system. Bearing in mind this view of the case, the author maintained, that we could best account for the phenomena of puerperal hemorrhages. We could understand how it might happen, that the tonacity of the arterial system being great, uterine hemorrhage would be prevented when the uterus was most released, and when, consequently, venous hemorrhage would be most liable to occur—that under the influence of morbid excitement of the heart and arteries, it might be profuse when the uterus was contracted, and when venous hemorrhage would be most effectually prevented; and that it might vary, in different cases, with the same amount of separation of the placenta.

Dr. Crisp was of opinion, that, in cases of partial separation of the placenta, the hemorrhage is not from the denuded uterus, but from the free portion of the placenta. He had been requested to see a case of Mr. Howell's, in which serious hemorrhage had followed delivery, and on examination, observed a portion of partially adherent placenta projecting from the os uteri, and was assured, from the touch, that the blood flowed from that structure. The placenta was entirely

removed, and the hemorrhage ceased. He thought that abnormal position of the placenta frequently led to hemorrhage, and that the latter is quite independent of an enfeebled state of system. He attached but little importance to the experiments of Dr. McKenzie.

Dr. Winn, on the other hand, believed that similar experiments performed on animals, would ultimately set the question at rest, and, while agreeing in the author's results so far as to affirm that hemorrhage proceeds from the uterus, he differed with him in believing that the immediate source is the uterine sinuses, and not the uterine arteries. He thought that the distinction between the color of arterial and venous blood, is sometimes liable to fallacy, since it is possible that the state of extreme nervous excitement of a patient in labor might render the venous blood of a more florid color. A friend of his had observed, that on drawing blood from the arm of a patient laboring under pneumonia, the color was quite florid.

Dr. Murphy was quite confident, from his own experience, that, whatever may be the immediate source of hemorrhage in these cases, the flow of blood ceases on the entire removal of the placenta. He thought it important to separate these practical facts from any theories. He then referred to the two classes of opinions; the one, held by a section whom he termed the Protectionists, that it proceeds from the uterus; and the other, supported by the reformers, that it flows from the placenta; and believe both to have built their theories upon hypothesis, and not upon experiment. He congratulated the author on having taken a first step in the required direction, and advised him to repeat his experiments again and again. He, however, cautioned him to bear in mind the great difference which exists between vital and dead structures, since, after death, the parts lose their tonicity, and any plugs which may have once been formed remain, and prevent the passage of the injection; but, in the living structures, any new flow of blood may detach the plugs, and permit the vessels to pour out blood anew. The author had referred to Dr. Gooch's case, in which no hemorrhage occurred, although the uterus remained of large size; and thought that so exceptional a circumstance could not support the deduction, that, therefore, the contraction of the uterus exercised no influence over the flow of blood.

Mr. Clark had assisted the author in his experiments, and bore testimony to the truthfulness of his descriptions, and the fairness of his deductions. He illustrated the latter by refer-

ring to those cases of post-partum hemorrhage in which the flow of blood begins long after the placenta has been expelled; and also by stating that, as the direction of the current is from the placenta to the uterine sinuses, the latter can supply but little, if any blood in such cases.

Dr. Snow Beck was prepared to defend each of the author's opinions seriatim; but stated, that the author's facts might be admitted and referred to apart from his deductions. He did not think that the uterine veins could be the sources of hemorrhage, and met with several cases of partially detached placenta, in which the hemorrhage did not cease on perfect separation of that organ. He also had met with a case so far resembling one mentioned by the author, that the color of the blood was distinctly florid, and the source, as he believed, arterial, and the hemorrhage in that case diminished or increased with the state of contractility of the organ. He would make a distinction between the contractility of the uterus as a whole, and that of the walls of the organ, and believed that the flow of blood through the vessels is rather due to the latter circumstance. This state is induced when the uterus is manipulated either within or without; and in those instances in which the hemorrhage was arrested on detachment of the placenta, the arrest might have been due solely to the contraction induced by the manipulation.—*Med. Times and Gaz.* Dec. 24, 1853.

Rape on an Idiot.

In the Court of Common Pleas of Athens County, Ohio.
March Term, 1853. Before Mr. Justice Nash.

State of Ohio against John Crow.

A female *idiot*, or an *insane female*, may be the subject of a rape.

An assault with an intent to commit a rape may be committed on the person of an insane female, or a female idiot.

The crime of having carnal knowledge of an insane female, knowing her to be such, is consummated when the act is done knowingly with her acquiescence or consent.

The word insane in the sixth section of the act for the punishment of crimes, Curren's *Revised Statutes*, pp. 184, 185, is used in its elementary and popular meaning, unsoundness

of mind; and hence embraces the case of one's having carnal knowledge of a female idiot, knowing her to be such.

The defendant was indicted: 1, for having committed a rape on the person of Louisa Dowler; 2, for an assault with intent to commit a rape on the said Louisa; and 3, for having had carnal knowledge, she, said Louisa, being an insane woman, and he, said defendant, knowing her to be such. The defendant pleaded not guilty, and the cause was tried by a jury at the last March Term of the Common Pleas.

The evidence on the trial proved that said Louisa Dowler was of unsound mind, and had been so from her nativity: though she was not so absolutely destitute of mind that she did not perform the necessary functions and calls of humanity; but that she had not mind enough to testify as a witness, or to be held legally responsible for her acts, whether civil or criminal.

The words of the statute are: "That if any male person, seventeen years old and upwards, shall have carnal knowledge of any other woman than his wife, such woman being insane, he knowing her to be such, every person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be imprisoned in the penitentiary, and kept at hard labor not more than ten, nor less than three years."

Mr. *Kowles* for the State.

Messrs *Nye* and *Jewett* for the defendant, claimed that the said Louisa, being an idiot, had no will, and, therefore, that a rape could not be committed on her person against her will; it was further claimed, that the word insane, in the sixth section of the act, did not embrace an idiot; and hence, that the defendant could be convicted of neither of the charges embraced in the indictment.

Mr. Justice NASH. It is claimed, *first*, that a female idiot is not the subject of a rape; that she has no will, and hence, an act cannot be done to her person against her will. No authorities are cited for this startling position. On looking into the books, I can find no such distinction intimated; and, if such was the law, it is singular that so important a qualification of the crime of rape should not have been noticed hitherto in any treatise on this subject. Rape is defined to be, the having carnal knowledge of a female, *forcibly and against her will.* There is here no limit to the use of the word female; nothing said as to the soundness or unsoundness of her mind, as to idiocy or insanity. In this respect our statute follows the common law; and must, therefore, be

construed as the same words were construed in the definition of the crime at common law.

There is another consideration not to be overlooked. The section providing for punishing assaults with a criminal intent, declares that an assault committed on another, with the intent to commit a rape, shall be criminal. Now, if a rape cannot be committed on the person of an idiot, then it is no crime to assault her person with such an intent. The same question applies also to assaults committed on an insane person; since this argument places them without the protection of the law, punishing the crime of rape. Nor are insane persons protected under the sixth section, since the crime there described is committed only when the perpetrator knows the woman to be insane. Indeed, that section is clearly limited to the case of a male person's knowingly having sexual knowledge of an insane female without resistance on her part, and with her acquiescence. Hence this section cannot be made to embrace the case of one having such sexual intercourse forcibly and against the will or resistance of such insane female.

It is further claimed that an idiot is not an insane person under the meaning of that term in the sixth section. This result then follows, that a female idiot is left wholly unprotected against this class of crimes. A person cannot be punished for having carnal knowledge of her person forcibly and against her will, as she has no will to overcome; she is not an insane person, and so not under the protection of the sixth section, and neither an idiot nor an insane female is protected against assaults made with an intent to commit a rape, since a rape cannot be committed on the person of either.

It must require some very cogent reasoning, or some very convincing authorities, before the court could be induced to give a construction to a statute which must lead to such results. But here is no such authority; no such decision has been found. Is there any more force in this reasoning? Let us examine it for a moment.

In the first place, where the carnal knowledge is had by *force*, it must be against the will of the female. Nor need there be any direct evidence of this action of the will; the law implies the want of consent from the force itself. It is the *consent* of the female which takes away all criminality from this connection; it is this want of consent which renders this connection obtained by force, criminal. Hence, if an idiot has no will to be overcome, she has none to consent;

and then the law implies that the act being accomplished by force, is done against her will.

But is it true that an idiot or insane person has no will? What is the definition of these two words? Do they imply the *loss* of *will*, or a mere *unsoundness* of mind? These words are thus defined by Webster: "Idiot—a natural fool, a fool from birth; a human being in form, but destitute of reason or the ordinary intellectual powers of man. Insane, unsound in mind or intellect; mad; deranged in mind;" and one of the words used to define *insanely* is *foolishly*. Fool is defined to be one who is destitute of reason, or the common powers of understanding; an idiot. Some persons are born *fools*, and are called *natural fools;* others may become *fools* by some injury done to the brain. In Chitty's *Medical Jurisprudence*, p. 348, "an idiot is defined to be a person who has been *defective* in intellectual powers from the instant of his birth, or at least before his mind had received the impression of any idea." Again, Chitty says, "that idiocy consists in a defect or sterility of the intellectual powers; but it may be induced in after life; while lunacy and madness consists in a *perversion* of intellect." All these definitions imply either a *weakness*, or *perversion* of the mind, or its powers, not their *destruction*. The powers are still all present, but in an impaired and weakened state. Hence, an idiot cannot be said to have no *will*, but a *will weakened* and *impaired*—a will acting, but not acting in conformity to those rules, and motives, and views, which control the action of the will in persons of sound mind. Indeed, in an insane person, the will is too often fearfully active, and wholly uncontrollable by reason or persuasion. There is here no lack of will, but simply a *perversion* of it. Nor is this the most conclusive answer to this argument. If there is no will how are the voluntary actions continued? Actions, which, like respiration, are instinctive, are independent of the will; but eating, and numerous other acts, which necessarily imply the exercise of the will, are performed by idiots and insane persons; and their exercise demonstrates the existence of a will; of a will which can assent to, or dissent from, what are clearly voluntary acts. I have, therefore, no hesitation in holding that both idiots and insane persons are possessed of a will, so that it may be legally and metaphysically said, that a carnal knowledge may be had of their persons *forcibly* and against their will.

The next inquiry is, what is the proper construction to be given to the word *insane?* In the sixth section of the act

for the punishment of crimes, *Curren's Revised Statutes*, p. 184, that section provides: "That if any male person, seventeen years old and upward, shall have carnal knowledge of any woman, other than his wife, such woman being *insane*, he knowing her to be such, shall be deemed guilty," &c. It is claimed that this word *insane* does not embrace a female who is an idiot. We have already seen that idiocy may be induced after infancy, as well as be congenital, Chitty's *Med. Jurisprudence*, p. 347, and that both terms are defined by the same words, *unsoundness of mind*. In the one case, this unsoundness of mind develops its existence in want of capacity to reason at all; or, at least, in a much less degree than the generality of mankind; while, in the other, there is, perhaps, greater acuteness, though upon false and fancied hypothesis, Chitty's *Med. Jurisprudence*, p. 348. Still, in both cases unsoundness of mind is the cause. The very origin of the word *insane* demonstrates this; in its Latin origin, it is a word simply meaning *unsound*, and nothing more; and in the popular language it is used in this sense to this day, whatever may be the specific meaning attached to it by writers on mental diseases. If, then, the object and policy of this statute embraces idiots as well as lunatics, there is nothing in the use of the word *insane* which absolutely precludes us from giving that elementary meaning to the word in this statute. The reason of this provision clearly applies to idiots, as well as to lunatics; if there is any reason in the case of female lunatics, why sexual intercourse with them should be prohibited, equally strong is the reason why it should not be permitted with female idiots. If the offspring in the one case might be affected with insanity, so in the other it might be with idiocy. Whatever reason, therefore, can be found to call for the law in relation to female lunatics, will apply in any equally cogent manner to idiots. If the one class ought to be protected, equally so ought the other.

Such then being the manifest scope of the law, I can have no hesitation in concluding that such was the intention of the legislature; that this word *insane* was used in its elementary and popular meaning, as descriptive of that unsoundness of mind which renders individuals civilly and criminally irresponsible for their acts, whether that unsoundness discloses itself in idiocy or lunacy.

In accordance with these views, I hold that a female idiot or an insane female is the subject of a rape; and hence of an assault with the intent to commit that crime; and that a male

person, of a proper age, who shall have carnal knowledge of a female idiot, knowing her to be such, is guilty under the sixth section of having carnal knowledge of an insane woman, knowing her to be such.

The jury were so charged, and they returned a verdict of guilty of an assault with an intent to commit a rape, and not guilty on the other two counts. And sentence was passed on the prisoner.—*Western Law Journal*, vol. x. pp. 501–5.

T. R. B.

Observations on the medical virtues of some of the most prominent Indigenous Vegetables grown in Vermont. By Ariel Hunton, M. D.

NARCOTICS.

Solanum Nigrum—*American Nightshade.* This article is an annual plant, by some classed among the exotics, but I think it is a native. The stem is branched, Glabrous, leaves ovate, berries abundant, and black when ripe; has the rank narcotic odor, placed in the 5th class in Botany, which contains many narcotic, or poisonous plants.

I use this plant solely in the bone ointment; we have male and female Cancer *Doctors*, who use escharotics and caustics to displace a pimple on the face, calling it a cancer, and use the inspissated juice, as an alterative, and in a plaster to the part, to blunt the virulence of the caustic application.

Datura Stramonium—*Jamestown Weed*, is a narcotic of much activity. This is also an ingredient in the bone ointment, and indispensable. I use the inspissated juice more than any other narcotic, opium excepted. I administer it in pills the bulk of one half kernel of wheat, or enough to slightly dilate the pupils, preferably to any other narcotic in neuralgia.

The leaves simmered in lard are excellent in piles, boiled in water applied in a fluid state, or in the form of cataplasm to painful tumors, or phlegmens, will usually assuage pain; a tincture of the seeds or leaves is used as a substitute for the inspissation.

Hyoscyamus Niger—*Black Henbane.* This is a naturalized plant, and much used as a narcotic. the infusion, tincture, and extract are all in repute for the relief of painful and obstinate inflammations; the internal use of this article, as

well as stramonium, will promptly allay irritation, and is preferable to opium in costive habits, as it does not constipate the bowels; in large doses it occasions a disagreeable dryness in the mouth and fauces.

Cannabis Sativa—*Hemp.* This is an ingredient in the ointment of which a recipe follows. It is proper to state that this is a naturalized plant sensibly narcotic, and the seeds contain a mucilage. It is a plant of some activity, belonging to the *Diœcius* Class, and may be employed with advantage externally in painful affections.

In treating of narcotics, I omit Digitalis Purpurea, Conium, and several others, intending to describe those used in the ointment I have mentioned, which is principally composed of narcotic and mucilaginous vegetables, with a few vulneraries.

MUCILAGES.

Some of our vegetables contain a greater quantity of mucilage in the same bulk or weight than others; but the medical virtues of all pure mucilages is the same; internally they blunt the acrimony of humors, lubricate the mouth and fauces, and prevent friction in the act of coughing. Externally they soothe the anguish of cutaneous eruptions, also in denuned surfaces, where inflammation succeeds vesication, scalds, burns, &c. They are useful in most of the diseases of the renal and urinary organs, and always a safe prescription in any ailment.

Ulmus Fulva—*Slippery Elm.* As to the quantity of mucilage, this article stands at the head of this class of medicines among us, for we have not the sassafras, of which the pith of the young shoots contains more mucilage than any other substance, if we except Tragacanth.

Slippery elm water is much used in this vicinity, in the complaints above enumerated, in regular as well as domestic practice.

Abies Balsamea—*Canada Balsam, Fir Tree,* the bark of which, aside from the balsam, contains a large quantity of mucilage, which it readily yields to cold water by stirring. A small tree in the open land, where it has the direct influence of the sun, contains a far greater quantity of mucilage than one from the forest; the fir water, or tea, is a safe and efficient expectorant in nearly all lung diseases, especially for children, it being not unpalatable. I have used this remedy

with others in pneumonia, and pleurisy, where an expectorant is demanded, with marked success, for many years.

ALTHEA OFFICINALIS—*Marsh Mallow.*—The various species of mallows contain a mucilage, is an ingredient in the bone ointment, and is used as an enema in dysentery, or any irritation of the rectum.

Cattail Flag, the root—botanical name not known by me—this article contains a large proportion of mucilage. The roots bruised, or pounded in a mortar, then immersed in cold water, or simmered until soft, are applied in form of a cataplasm, to inflamed surfaces, without any addition, particularly to burns, and is in frequent use for such purposes.

PORTULACCA ALERACEA—*Garden Purslane.*—is an esculent plant, containing mucilage in abundance, is used for the same purposes, as the last described, bruised, with no addition except water, applied to inflamed surfaces as a cataplasm.

PRUNELLA VULGARIS—*Heal-all.* I am not sure I have the proper botanical name of this plant; it grows in our pastures and mow-fields—hight from six to ten inches; a head the bigness of a man's thumb, about one inch in length; blue labiate blossoms standing out horizontally from the head; belongs to the class didynamia; contains a mucilage.

SEMPERVIRENS TECTORUM—*House leek,* a mucilaginous plant.

SYMPHYTUM OFFICINALE—*Comfrey,* the same medical class.

VIOLA TRICOLOR—*Heart's ease,* contains a mucilage.

The three last are mentioned because they enter into the formula of the ointment, and quite a number of articles used are not described in the above list.

Following the above descriptions, I will give a recipe of the *Kittrege Bone Ointment,* which has been used with celebrity by men of that name in New England for more than a century; it is used by them and others in contusions, sprains, fractures, dislocations, phlegmonous inflammations, &c. In obstetricy it is very useful to lubricate the vagina and perineum, it facilitates dilation, and mitigates the pains in the passage through the vulva. The tenderness usually experienced by females in the vagina after parturition, is promptly relieved by an application of this ointment, per vaginam.

RECIPE FOR THE KITTREGE BONE OINTMENT.

℞ Melliotus Officinalis,	Lilium, Flavum, rad.
Malva Sylvestris,	Anthemis Nobilis,

Salvia Officinalis,	Artemisia Absinthium,
Nicotiana Tabacum one large plug,	Solanum Nigrum, American Nightshade,
Humulus Lupulus, fol.	Viola Tricolor,
Plantago Major, "	Hypericum perforatum, St. John's wort,
Sambucus Canadens. "	Sempervirens Tectorum,
Aretium Lappa, "	Datura Stramonium,
Rumex Acestus, "	Prunella Vulgaris, à à pugil.
Symphytum Officinale fol.	Cannabis Sativa, fol.
Hyoscyamus Niger, "	

The recipe, it will be observed, is a farrago of narcotic and mucilaginous vegetables, and a few vulnerary herbs and roots. They should be gathered the last of July or first of August, when the virtues have attained maturity, and the articles are in full vigor. There should be enough of the articles to fully saturate the lard, and they should be used while green. I seldom obtain all the articles—the most essential are the narcotic and mucillaginous. I usually make ten pounds each year. My recipe was originally from Dr. Jonathan Kittrege, of Canterbury, New Hampshire.

Put your herbs in an iron vessel, with a cover, add one gill of water, to obviate incineration, add your lard or butter, the quantity you intend to prepare, simmer over a slow fire a long time, at least two days, and until the herbs are fried, or crisped, then strain with pressure.

At this warm season, after the morning or evening repast is cooked, the fire is suffered to subside, I then set my pot over the fire, and let it remain until the fire goes out. I do this every day, or twice a day, for two or three weeks, stirring the herbs occasionally.

I have used this ointment forty years, and can speak in its favor. I believe that any physician, who will take the trouble to prepare the article and use it as directed, will be amply paid for so doing.

Hyde Park, Vermont, July, 1854.

New Mode of Treatment for Delayed or Non-Union of a Fractured Humerus. Read before the Medical Society of the County of Erie, By Frank H. Hamilton, M. D.

It has been observed by surgeons, that non-union results more frequently after fractures of the shaft of the humerus,

than after fractures of the shaft of any other bone. This observation is confirmed by my own researches.

Comparing the humerus with the femur, between which, above all others, the circumstances of form, situation, &c., are most nearly parallel, and in both of which non-union is said to be relatively frequent, I find that of forty-nine fractures of the humerus, four occurred through the surgical neck, twelve through the condyles, and twenty-nine through the shaft. In one of the twenty-nine, the patient survived the accident only a few days. In four of the remaining twenty-eight, union had not occurred after the lapse of six months, and in many more was it delayed considerably beyond the usual time. Two of the four were simple fractures, and occurred near the middle of the humerus; the third was compound, and occurred near the middle also; the fourth was compound, and occurred near the condyles.

This analysis supplies us, therefore, with four cases of non-union, from a table of twenty-eight cases of fractures through the shaft.

Of eighty-seven fractures of the femur, twenty occurred through the neck, one through the trocanter major, and one through the condyles. The remaining sixty-five occurred through the shaft, and generally near the middle, and in not one case was the nnion delayed beyond six months.

To make the comparison more complete, I must add that of the twenty-eight fractures of the shaft of the humerus, six were compound; and of the sixty-five fractures of the shaft of the femur, six were either compound, comminuted, or both compound and comminuted. The six compound fractures of the shaft of the humerus, furnished two cases of non-union. The six cases of either compound or comminuted, or compound and comminuted fractures of the femur, furnished no case of non-union.

I beg to suggest to the Society what seems to me to be the true explanation of these facts.

It is the universal practice, so far as I know, in dressing fractures of the humerus, to place the forearm at right angles with the arm. Within a few days, and generally, I think, within a few hours, after the arm and forearm are placed in this position, a rigidity of the muscles and other structures has ensued, and to such a degree, that if the splints and sling are completely removed, the elbow will remain flexed and firm; nor will it be easy to straighten it. A temporary false anchylosis has occnrred, and instead of motion at the elbow

joint, when the forearm is attempted to be straightened upon the arm, there is only motion at the seat of fracture. It will thus happen, that every upward and downward movement of the forearm will inflict motion upon the fracture, and inasmuch as the elbow has become the pivot, the motion at the upper end of the lower fragment will become the greater in proportion to the distance of the fracture from the elbow joint.

No doubt it is intended that the dressings shall prevent all motion of the forearm upon the arm; but I fear that they cannot always be made to do this. I believe it is never done when the dressing is made without angular splints, nor is it by any means certain that it will be accomplished when such splints are used. The weight of the forearm is such when placed at right angles with the arm and encumbered with splints and bandages, that even when supported by a sling, it settles heavily forwards, and compels the arm dressings to loosen themselves from the arm in front of the point of fracture, and to indent themselves in the skin and flesh behind. By these means the upper end of the lower fragment is tilted forward. If the forearm should continue to drag upon the sling, nothing but a permanent forward displacement would probably result. The bones might unite, yet with a deformity.

But the weight of the forearm under these circumstances is not uniform, nor do I see how it can be made so. It is to the sling that we must trust mainly to accomplish this important indication. But you have all noticed that the tension or relaxation of the sling depends upon the attitude of the body, whether standing or sitting—upon the erection or inclination of the head—upon the motions of the shoulders, and in no inconsiderable degree upon the actions of respiration. Nor does the patient himself cease to add to these conditions by lifting the forarm with his opposite hand whenever provoked to it by a sense of fatigue.

The difficulty of maintaining quiet apposition of the fragments while the arm is in this position, at whatever point the arm may be broken, becomes more and more serious as we depart from the elbow joint, and would be at its maximum at the extreme upper end of the humerus, were it not that here a mass of muscles, investing and adhering to the bone, in some measure obviates the difficulty. Its true maximum is therefore near the middle, where there is less muscular investment, and where, on the one hand, the fracture is suffi-

ciently remote from the pivot or fulcrum to have the motion of the upper end of the lower fragment multiplied through a long arm, while on the other hand it is sufficiently near to the armpit and shoulder to prevent the upper portion of the splint and arm dressings from obtaining a secure grasp upon the lower end of the upper fragment.

It must not be overlooked that the motion of which we speak belongs exclusively to the lower fragment, and that it is always in the same plane, forwards and backwards; but especially that it is not a motion upon the fracture as upon a pivot, but a motion of one fragment to and from its fellow. This circumstance I regard as important to a right appreciation of the difficulty. Motion, alone, I am fully convinced, does not so often prevent union as surgeons have generally believed. It is exceedingly rare to see a case of non-union of the clavicle. Of forty-seven cases of fracture of the clavicle which have come under my observation, and in by far the greater majority of which, considerable overlapping and consequent deformity has resulted—of this number only one has resulted in non-union, and in this instance no treatment whatever was practiced, but from the time of the accident the patient continued to labor in the fields, and hold the plow as if nothing had occurred. I have, therefore, seen no case of non-union of the clavicle where a surgeon has treated the accident. Indeed, what is most remarkable, its union is more speedy, usually, than that of any other bone in the body, of the same size. Yet to prevent motion of the fragments in a case of fractured clavicle with complete separation and displacement, except where the fracture is near one of the extremities of the bone, I have always found wholly impracticable. Whatever bandages or apparatus I have applied, I have still seen always that the fragments would move freely upon each other at each act of inspiration and expiration, and at almost every motion of the head, body or upper extremities. It is probable, gentlemen, that you have made the same observation.

From this and many similar facts I have been led to suspect, for a long time, that motion has had less to do with non-union than was generally believed.

I find, however, no difficulty in reconciling this suspicion with my doctrine in reference to the case in question; and it is precisely because, as I have already explained, the motion, in case of a fractured humerus, dressed in the usual manner, is peculiar. In a fracture of the clavicle through its middle

third, (its usual situation,) the motion is upon the point of fracture as upon a pivot; although, therefore, the motion is almost incessant, it does not essentially, if at all, disturb the adhesive process. The same is true, in nearly all other fractures. The fragments move only upon themselves, and not to and from each other. I know of no complete exception but in the case now under consideration.

Aside of any speculation, the facts are easily verified by a personal examination of the patients during the first or second week of treatment, or at any time before union has occurred, both in fractures of the humerus and clavicle. The latter is always sufficiently exposed to permit you to see what occurs, and as soon as the swelling has a little subsided in the former case, you will have no difficulty in feeling the motion outside of the dressings, or perhaps in introducing the finger under the dressings sufficiently far to reach the point of fracture. I believe you will not fail to recognize the difference in the motion between the two cases.

Such, gentlemen, is the explanation which I wish to offer for the relative frequency of this very serious accident—non-union of the humerus.

I know of no other circumstance or condition in which this bone is peculiar, and which therefore might be invoked as an explanation. Overlapping of the bones, the reason assigned by some writers, is not sufficient, since it is not peculiar. The same occurs much oftener, and to a much greater extent, in fractures of the femur, and equally as often in fractures of the clavicle; yet, in neither case are these results so frequent. Nor can it be due to the action of the deltoid or of any other particular muscles about the arm, whether the fracture be below or above their insertions, since similar muscles, with similar attachments on the femur and on the clavicle, tending always powerfully to the separation of the fragments, occasion only deformity, but not non-union.

If I am correct in my views, we shall be able sometimes to consumate union of a fractured humerus where it is delayed, by straightening the fore-arm upon the arm, and confining them to this position. A straight splint, extending from the top of the shoulder to the hand, made of some firm but moulding material, and made fast with rollers, will secure the requisite immobility to the fracture. The weight of the fore-arm and hand will only tend to keep the fragments in place, and if the splint and bandages are sufficiently tight, the motion occasioned by swinging the hand and fore-arm will

be conveyed almost entirely to the shoulder joint. Very little motion indeed, can in this posture be communicated to the fragments, and what little is thus communicatnd, is a motion which experience has elsewhere shown not disturbing or pernicious, but a motion only upon the ends of the fragments as upon a pivot.

I do not fail to notice that this position has serious objections, and that it is liable to inconveniences which must always, probably, prevent its being adopted as the usual plan of treatment for fractured arms. It is more inconvenient to get up and lie down, or even to sit down, in this position of the arm; and the hand is liable to swell. But I shall not be surprised to learn that experience will prove these objections to have less weight than we are now disposed to give them. Remember, the practice is yet untried—if I except the case which I am about to relate, and in which case, I am frank to say, these objections scarcely existed. The swelling of the hand was trivial, and only continued through the first fortnight, and the patient never spoke of the inconvenience of getting up or sitting down, or even of lying down.

The following is the case to which I have just referred.

Michael Mahar, laborer æt. 35, broke his left humerus just below its middle, Dec. 14, 1853. The arm was dressed by a skillful surgeon in Canada West, and who is well known to me as exceedingly "clever." After a few days from the time of the accident, "the starch bandage was put on as tight as it could be borne, and brought down on the forearm so as to confine the motions of the elbow-joint."

Six weeks after the injury, Jan., 29, 1854, Mahar applied to me at the hospital. No union had occurred. The motion between the fragments was very free, so that they passed each other with an audible click. There was little or no swelling or soreness. In short, everything indicated that union was not likely to occur without operative interference. The elbow was completely anchylosed. His health was unimpaired.

I explained to my students what seemed to me to be the cause of the delayed union, and declared to them that I did not intend to attempt to re-establish adhesive action until I had straightened the arm. They had just witnessed the failure of a precisely similar case in which I had made the attempt without straightening the arm and without success.

Feb. 6, 1854. I had succeeded in making the arm nearly straight. I now punctured the upper end of the lower fragment with a small steel instrument, and as well as I was

able, thrust it between the fragments. Assisted by Dr. Boardman, I then applied a gutta percha splint from the top of the shoulder to the fingers, molding it carefully to the whole of the back and sides of the limb, and securing it firmly with a paste roller.

March 4th. (Not quite four weeks after the application of the splint), I opened the dressings for the second time, and carefully renewed them. A slight motion was yet perceptible between the fragments.

March 18th. I opened the dressings for the third time, and found the union complete. This was within less than forty days.

The patient was now dismissed. On the 29th of April following the bone was refractured. Mahar had been assisting to load the "tender" to a locomotive. While the train was just getting in motion he was hanging to the tender by his sound arm when another laborer seized upon his broken arm to keep himself upon the car, and with a violent and sudden pull wrenched him from the tender and reproduced the fracture.

The next morning I applied the dressings as before, and did not remove it during three weeks; at the end of this time the union was again complete. The splint was, however, re-applied and has been continued to this time—a period of about six weeks.

Case of Placentary Apoplexy. By Thomas F. Cock, M. D., Physician to Bellevue Hospital, &c.

I was called about 6 o'clock in the afternoon of June 8th, 1854, to see a Scotch woman, æt. 40 years, who was said to be between six and seven months advanced in her seventh pregnancy. From her physician, Dr. Norval, the following history was obtained. Her previous labors and subsequent recoveries had been normal, with the exception of the last, which had been complicated with an attack of metritis, resulting from incautious exertion.

During the 7th, and on the morning of the 8th, the patient had been exerting herself in house cleaning. About 3 o'clock in the afternoon, while conversing with a neighbor, she became pale and faint, and was assisted to bed, where she soon became nauseated, and began to complain of distressing dis-

tension in the abdomen. Previous to this occurrence, her abdomen had been quite small for the supposed term of pregnancy; now, however, the increase in size not only attracted her own attention, but became manifest, even through her dress, to the bystanders. Dr. N., on his arrival, administered a carminative, and some flatus was expelled with partial relief. Both bowels and bladder had been evacuated during the day.

I saw the patient about six in the evening, and found her pale and faint, the surface cool, pulse feeble, compressible, and rather slow; she was disposed to gape, and frequently vomited. The principal comp'aint, however, was of the sense of distension, which she spoke of as a "feeling like bursting," and causing great distress. On examining the abdomen, the uterus was found distended to the size of full term of pregnancy, the portion of the organ on the right hypochondrium appeared to be more elevated than the rest, and there was an obscure feeling of fluctuation in this situation. Percussion detected flatus in the epigastric region, while to the ear, neither fœtal pulsation nor placental murmur could be heard. Vaginal examination discovered no hemorrhage, and an undeveloped cervix uteri, as might be expected at the period of pregnancy.

The diagnosis of the case lay between rupture of the uterus, which might be favored by the previous existence of metritis, and internal hemorrhage. The *increased* size of the abdomen, and absence of the peculiar distinct feel of the fœtus, as occurring in rupture, decided the case as one of hemorrhage. The absence of vaginal hemorrhage, the enlargement of the uterus in a particular part, and the obscure sense of fluctuation, induced me to believe the case to be one of those comparatively rare instances of flooding, to which the misnomer of placentary apoplexy has been assigned.

The indications were obviously to limit, if possible, the amount of hemorrhage, to sustain the patient until the immediate effect of the shock should pass away, and to effect delivery as soon as practicable. For the first, it was supposed the application of a bladder of ice might be of some service; for the second, stimulants were naturally resorted to, from the knowledge of the fact that such cases prove fatal rather from the suddenness of the effusion and the consequent shock than from the amount of blood lost; while, for the third, the only resource was to await the efforts of nature un-

til the state of the os and cervix uteri should permit manual or instrumental interference in emptying the uterus.

After considerable delay, and no evidence of commencing labor appearing, it was deemed advisable to use anodyne means for the relief of the abdominal distress, and this seemed the more feasible as reaction had by this time placed the patient beyond the apprehension of danger by the shock. Accordingly, Majendie's solution of morphine was given in camphor mixture, with relief to the distress, and under its influence some sleep was obtained.

No further progress was made until the afternoon of the 8th, when labor set in, about 3 o'clock. Soon after the commencement of uterine contraction, a small amount of fluid dark blood was discharged, but this soon ceased. At 12 o'clock, I again visited the patient, and found labor progressing actively, the os uteri nearly dilated, the pains vigorous, and general strength satisfactory. The membranes were ruptured by Dr. N., a large gush of liquor amnii followed, and the next contraction expelled the fœtus, placenta, and a large quantity of clotted blood. No untoward symptoms followed the expulsion, and the uterus contracted firmly.

The fœtus was apparently about six months old. I gathered up the clots, which filled a large chamber utensil more than one-third full, and constituted an effusion of blood estimated at more than two quarts. The placenta was unbroken on its fœtal surface; on the maternal side it had been detached over a space involving fully three-quarters of its superfices.

The issue of the case I think justified the diagnosis. The antecedent symptoms were those assigned to placentary apoplexy, while the absence of external hemorrhage, the simultaneous expulsion of fœtus, placenta, and clots, and the appearance of the placenta, all pointed to a flooding that had been extensive, and yet had been localized, and had probably been restrained by the continued adhesion of the edge of the placenta.

As to the treatment and issue of a case where interference is at first impracticable, the hope of a favorable termination lies only in the capacity of endurance of shock which the patient may possess, until such time as shall permit the efforts of the accoucheur, by version or the forceps, as circumstances may indicate.

In the only other case in my practice in which this variety of concealed hemorrhage was supposed to have occurred, the

unaided efforts of nature also accomplished delivery. In this case the labor was progressing satisfactorily, when the patient became faint, and sick at the stomach, restless, and exclaimed that she was going to die. No blood escaped from the vagina. After a momentary lull of pain, contraction came on vigorously, the liquor amnii was discharged uncolored, but with the placenta several large clots were expelled.

Both patients recovered.

On a New Mode of Reducing Prolapsus Uteri. By Reuben Searcy, M. D., of Tuscaloosa, Alabama.

Mr. Editor:—I am not aware that any writer has recommended precisely my manner of operation for the correction of the misplacement of the organ now under consideration. As I have been uniformly successful, I thought, probably, that by this communication, I might make some suggestions that may lead physicians to a more easy and successful operation than is usually practiced. First make a digital examination, to ascertain the condition of the womb; if you find it engorged with a dipping down in the vagina; place the female on her knees, her breast low on the bed, she should bend her back as far forward as possible; which I term sway the back; by this position, the weight of the bowels, and the abdominal muscular contractions are taken off, and the operator has every chance of replacing the organ; by introducing the index and middle fingers, and reaching, by pressing his fingers as far into the vagina as possible, the body of the womb lying next to the rectum; then by a firm pressure, carry the womb to its proper place. If the womb has been long out of place, it will take much more force than is generally imagined to effect a restoration; which must be accomplished, let the pain be ever so great; when this is accomplished, the female should be directed to fall on her side without rising up, and remain in a horizontal position several hours, or until next morning, as I generally select the usual bed time for the adjustment. I allow my patient to be up and take exercise to invigorate the system, giving directions to avoid lifting, and severe exertion, or anything thing that would cause a straining of the abdominal muscles, and for her to lie down frequently and every time on lying down, to place herself on her knees, breast down and back

swayed, and while in this position to make a suction or upward drawing of the abdominal muscles; this will bring the womb that would otherwise be disposed to fall as low as first found, back into its proper place. this position and practice should be especially insisted on every night on retiring.

Frequently one replacement, by following up the practice of position, together with the suction and swaying of the back, and for her, after a few suctions, to remain on her knees, in a perfectly relaxed condition of all the muscles, before tumbling down for the night. By this practice, the womb will soon accommodate itself in its proper place, and the ligaments and other parts sustaining the womb, will strengthen.

If the symptoms are such, after a few days, as to cause the practitioner to suspect that the womb is not right, examine again as before, etc. Generally it is not necessary until after the next catamenia has ceased, then it would be well to re-examine, etc. If, on the first examination, the womb is found retroverted, after placing the woman on her knees, breast down and back swayed; then the doctor will proceed; and unless he has unusually long fingers he will not be able to reach the fundus of the womb by the vagina; then it will be necessary for him to explain to her the necessity for him to introduce the finger, (the index) into the rectum; then by running the finger high up in the bowel, reach to where the fundus of the womb is pressing against the bowel; then by a very firm pressure forward, the bowel going before the finger, the womb is carried in a proper line for adjustment, as before directed; this breaking up or breaking out of its unnatural bed or displacement, is extremely painful, and a timid practitioner will desist through sympathy for the sufferer before he accomplishes his object, and leave his patient to drag out a life of suffering, unless she should fortunately fall into bolder hands. The suffering for a few moments should not deter the operator from pushing to the accomplishment of so great and so permanent a relief. It will be readily perceived that I discard all pessaries. I deem them irritants and excitants, and seldom do good, and therefore should be condemned and discarded from this practice.

By my plan, the patient exercises sufficiently for the general health, she is not subjected to much manipulation, as she is on the other plans. The plan presents itself at once forcibly to the minds of all, as the most natural and easy of accomplishment of all others.

Abdominal or bowel supporters might be necessary for some females to wear, where the bowels press too heavily on the broad ligament or floor of the abdomen in which the womb is suspended. The patient should be directed not to let the bladder become much distended.

All departures from general health should have, medicinally, their appropriate attention.

To Prevent Night-Sweats in Phthisis.

Night-perspirations in the course of phthisis are often extremely annoying to the patient; they appear also to be simply debilitating, and unattended by any degree of collateral benefit. Some cases, which were carefully noted by Mr. Hutchinson, the Clinical Assistant at the City Hospital for Chest Diseases, with a view to the determination of that question, appear to show that they may be artificially checked, not only with impunity, but with great benefit. The patients, who were so treated, and who, in the course of a week or fortnight, got quite rid of sweatings, which for months had been profuse, thought themselves much better, and did not complain of increase, either as regards the expectoration, the feverishness, or the sense of stuffing in the chest. Under the the usual treatment of phthisis, (full diet, cod-liver oil and tonics,) the tendency to night perspirations often ceases spontaneously. If it becomes desirable to expedite the process, it may be done by the sesquichloride of iron, the mineral acids, or, best of all, by the gallic acid. The following is the prescription for a night draught containing the latter:

℞ Acidi gallici. gr. vij.; Morph. acet. gr. 1-8;
Alcohol q. s. (a few drops); Syr. tolutan, 3ss Aquæ 3j.

The night-pill, as we find in the Pharmacopœia of the Brompton Hospital for consumption, is—

℞ Acid. gallic. gr. v.; Morph. hydrochl. gr. 1-8;
Mist. acac. q. s. Ft. pil. ij.

It is also of advantage to adopt an astringent regimen as far as convenient. The patient should be directed to sleep on a mattress, alone, and not heavily clothed; he should wear no flannel in bed; as dry a diet should be taken as conveniently can be borne, and fluid should be especially avoided in the latter half of the day, none whatever being allowed later than several hours before bed-time.—*London Med. Times.*

Editorial.

N. P. WILLIS AND HOMEOPATHY.

This distinguished literary gentleman has, on various occasions, given the public an intimation of his *medical* preferences, and more recently, as a sort of dying declaration, has seen fit to express a preference for homeopathy. These opinions having been promulgated through the medium of a public newspaper, were evidently designed for the whole community; and as they thus assume the tone and character of public *teaching*, and from the very nature of the position of the writer, exercise an undue and consequently pernicious influence, it becomes not only a privilege, but even a duty, to expose their fallacy.

Several years ago, Mr. Willis was in the habit almost weekly of introducing into the columns of the *Home Journal* some commendatory notice of homeopathy or homeopathic books. He was an invalid and had evidently become imbued with the mysteries of the homeopathic faith; and, with the peculiar enthusiasm of pseudo-reformers, he was ever ready to thrust, unasked, his opinions before the public. Having become disgusted with these repeated attempts to propagate a mere empiricism, the writer of this article addressed a communication to the *Home Journal*, setting forth the impropriety and indelicacy of occupying the columns of that journal for such a purpose, and asking in the name of a common literature, that the columns of so valuable a periodical be not desecrated with such effusions. That communication, we have reason to believe, exercised some influence, for after that period Mr. Willis ceased to allude to homeopathy, and until his issue of the 5th ult., the subject was allowed to remain undisturbed.

In the *Home Journal* of the 5th of August, Mr. Willis addressed an article "To Invalids Only," in which he sets forth some of his experience in the treatment of consumption—the disease from which he appears to be suffering. In that article he recounts a portion of his experience, which, we think, exhibits to very bad advantage his judgment and prudence.

It will be remarked that Mr. Willis had become a confirmed homeopathist, and it is extremely probable that though the agency of infinitismal globules and horse-back exercise, he for a long time anticipated ultimate recovery. Finally, however, his faith in homeopathy became weakened, and he clearly foresaw that it was, in his individual case, impotent; and with hope still unextinguished, was ready to grasp the nearest object that promised relief.

Some months previous to the discovery, that homeopathy would not cure the disease, a physician of Boston, whose name is not given, addressed a letter to Mr. Willis, offering advice in his case, (or rather in regard to the treatment of consumption in general), and setting forth a new treatment, based on a new theory. That letter appeared to Mr. Willis so important that he published it in the *Home Journal;* and the following extract will convey an idea of the theory and treatment:

"In all cases like yours the skin does not perform its office. * * The system is surcharged, overflowing with *acidity*. * * Admit these facts, and what is the conclusion of the whole matter? It is this: Take a warm alkaline bath, say twice a week. * * Next, but not second in importance, night and day surround the chest with a *soap jacket*, made of flannel, and spread with the darkest-brown soap (being strongest with *alkali*) melted to the consistence of thick paste, with a little boiling water. * * Use a simple pure *alkali*, internally, to neutralize the acidity already there."

Here is an inefficient practice, based on a crude and false theory, but nevertheless sufficiently novel to attract attention, and as it was put forth with the usual *confidence of expression* peculiar to half-way empirics, at the same time claiming the highest science, it could not fail to find many ready to adopt it. And among these willing converts Mr. Willis took the lead. He says:

"As my homeopathic aids to convalescence had, for some little time, seemed to have weakened or changed in their action upon my system, and my friends warned me that I was losing ground, I was the more willing to try the new remedy," etc.

The result, however, as might readily have been anticipated, was unfortunate. Mr. Willis assures us that he rapidly lost strength in consequence of the excessive perspiration produced

by the "soap-jacket," (it being warm weather), and the internal alkali, which promised to counteract an insidious acid, destroyed the tone of the stomach, and he had the sensation of being *inwardly tanned*, so that at the expiration of *eight days* he was left without appetite, and his general strength greatly diminished.

Following this confession of the failure of the alkaline treatment, Mr. Willis goes off into a rambling discourse, half apologetic for the failure of the treatment, for the want of *personal supervision* of the *soap-jacket* doctor, but more directly a criticism on the usual routine of *busy doctors*, or those having extensive practice, and the consequent want of attention to patients, with the happy conclusion that nine out of ten of the remedies for every disease are hygienic.

But finally returning from this ramble, Mr. Willis reassures himself and proceeds to gossip with the invalid reader in a sort of general summing-up and judgment on medical systems, in the following language:

"I think there is a grain of truth for us in almost every theory of cure—something in hydropathy, 'something in kneading and pummeling the stomach,' something in 'inhalations,' something in raising the siege of the disease by counter-irritation, or by dislodgment and change of action with homeopathic alternations, etc., etc., etc. By judicious care and counsel we may combine a self-treatment from two or more of these 'positive cures for consumption'—particularly such as involve no use of violent medicines, or are mainly alleviative—thus keeping prudence awake and encouraging hope, even if we do not stumble by chance on the specific for our case. In homeopathy however—as administered by a prophet in its secrets like Dr. Gray of New York—I may express my individual setting-down of faith and preference."

The most notable fact connected with the experience and opinions of Mr. Willis in the treatment of his disease, and the point which we wish especially to make, *is his utter failure to recognize a science of medicine!* The whole subject is treated as though the administration of remedies was, necessarily, haphazard, and consequently that individual experience and judgment must be invoked to decide on what is right and what is wrong—although that individual experience and opinion comes from one who has no claim to that species of knowledge which should give

him the character of an umpire. It is precisely on this principle that he thinks consumptives may combine, from the various systems, a "*self-treatment*," and thus literally become their own doctors. This want of confidence in medicine, on the part of Mr. Willis, *as a science*, is farther exhibited (and in a melancholy light, too,) in his ready adoption of the alkaline and soap-jacket treatment. The theory proposed by the *eminent Boston Doctor*, that consumption consists in *acidity* of the system, is utterly absurd, at variance with all received and known laws of the disease, and could be entertained only by one who is naturally an empiric; and yet Mr. Willis, with a facile faith, *stakes his life* on the truth of the *theory*, and to his severe cost adopts the practice. Now had he known or acknowledged the existence of a *science* of medicine—an accumulative mass of facts and principles which have been tested by enlarged experience and the severest scrutiny of the ablest and best of men, in all ages and countries—he would have been saved the pernicious experiment which he made, and would have neither swallowed Hahnemannian globules nor worn the soap-jacket.

Why Mr. Willis does not recognize medicine as a science, we do not precisely know, but it *appears* to arise from an unwarranted confidence in his own judgment—and this self-confidence may depend on natural vanity, or, (which we incline to believe) on the *peculiar training and constitution of the mind*, characteristic of *classes*, rather than *individuals*. It is a well-known fact that quite a notable number of *literary* persons have become converts to homeopathy, hydropathy and other forms of empiricism; and to which we must add another class equally notable and more numerous—who have evinced, in too many instances, a penchant for the mazes of quackery—namely, clergymen. These constitute *classes* of persons who, by a peculiar constitution of mind have their reasoning faculties so perverted by surrounding circumstances, that they assume for themselves universal knowledge and judgment, and no more hesitate to decide the most abstruse question in medicine, than they would the meaning of the plainest text of Scripture, or the simplest proposition in literature. We do not mean that these results *necessarily* flow from either theology or literature; but we believe that, *in a certain class of persons*, such studies and habits finally produce a mental hallucination

which prompts the unfortunate person to dip into mysteries of which he is totally ignorant, and to mistake his own fancies for the results of acknowledged facts and sound logic. The *hallucinations* which some persons experience become so fixed and immovable that it results in a degree of insanity; but how many persons should be classed in this unfortunate category we will not now assume to decide.

In the case of N. P. Willis a most unfortunate and melancholy picture is exhibited. America can boast no more accomplished and fascinating writer, and no one who has given more character to our home-literature; and to witness such a one bending the knee at the altar of quackery is humiliating to our national and individual pride. He has left a legacy—unconsciously, it may be—to the most subtle form of empiricism, which will doubtless be hailed by the whole infinitismal brotherhood as of inestimable value. And as to the homeopathic "Prophet," Dr. Gray of New York, we suppose the least he can do is to emblazon the lintel of his door with the glorious title of *prophet*; for although he be a veiled one, like the great Mokanna, that same veil will serve to hide the deformity beneath as well in truth as in fiction. Mr. Willis is evidently fast passing away, and in a few more fleeting days his brilliant genius will no more flash on the public through the columns of the *Home Journal;* and although we will not presume to say that he might have been saved by proper medication, still the slow progress of his disease warrants the belief that had he relied on the *science* of medicine instead of wasting his precious time with homeopathic tomfooleries, his brilliant career might have been considerably prolonged. We can but deeply regret that his last missive from *Idlewild* should contribute to the apotheosis of "Dr. Gray," as the embodiment of homeopathy, and the embalming—at least in the memory of mysticism—the veiled glories of Hahnemannian empiricism.

QUARANTINES TO EXCLUDE CHOLERA.

The *Boston Medical and Surgical Journal*, in noticing that the authorities of St. John, New Foundland, are enforcing quarantine laws on all vessels arriving from cholera districts, makes the following remarks:

"We confess that this announcement takes us by surprise, as

we had supposed all sensible men were thoroughly convinced, by this time, that the cholera is one of those migratory diseases whose progress no human efforts can confine or arrest. Cholera is not contagious."

We are of opinion that our esteemed cotemporary is entirely too hasty and sweeping in the above remarks. It is true quarantines generally have and doubtless will continue to prove inefficient in arresting not only *cholera*, but also most other diseases propagated by contagion or personal intercourse. The observations of the senior editor of the Journal, while traveling in the East, abundantly confirms this opinion; but because human ingenuity and dishonesty may be capable of evading quarantine laws and thus effectually counteracting the plans of civil authorities, it does not follow that the principle itself is wrong, or that all such efforts should be abandoned.

The *Journal* asserts, very positively, that *cholera is not contagious*, and surprise is expressed that sensible men should believe to the contrary. If the editor will take the trouble to look into the opinions of the profession on this subject, he will find that *sensible* men *do* believe in the infectious properties of cholera, and this view is becoming quite common among those who take the trouble to investigate the subject, and do it divested of all prejudice. The *facts* on this subject, indeed, are so overwhelming that we are equally *surprised* that any one should reject them.

We have no doubt that cholera has a twofold mode of propagation. It evidently becomes atmospheric, and is quite as clearly conveyed by means of persons and things. It has traveled against trade-winds and monsoons—has frequently broken out in healthy districts on the arrival of persons or things impregnated with the choleraic poison—and again it has spread *apparently* independent of personal intercourse, and therefore propagated by the atmosphere.

Now in view of these facts (and they are not of *our* coining) we think *sensible* men *will* conclude that there is a *possibility* of quarantines effecting some good. It is true that quarantines will hardly protect a town if the disease prevailed inland, for the atmosphere can not be arrested by the vigilance of a *cordon sanitaire*. But if the disease is beyond a body of water, it is extremely probable that an *absolute* interdiction of intercourse would be

effectual. We know of no example in which the cholera atmosphere has passed over a considerable body of water; and we think it is a reasonable conclusion that cholera never would have reached the American continent had it not been brought by shipping.

It is not proper, or philanthropic, therefore, to condemn in such sweeping terms the good intentions of civil authorities in their attempts to mitigate the terrors of cholera; and especially should *medical* men be careful how they utter opinions not in accordance with the facts of the case, whereby the public may be misled and injured.

CURE OF CONSUMPTION.

Will our confrere of the Boston *Medical and Surgical Journal* have the goodness to let the world know who is the *distinguished Boston Doctor*, now curing consumption with alkalies and the *soap-jacket*. We think our friend has been singularly remiss in allowing the *Home Journal* to become the herald of this great news.

ANNUAL ANNOUNCEMENTS.

This is the season of the year when showers of "Annual Announcements," emanating from the various medical schools, pour in upon us "thick as leaves in Vallombrosa." We have space only to note their titles and the names of the Deans, so that those desiring further information can obtain it from the proper source.

Medical College of Ohio, (Cincinnati) T. O. Edwards, Dean; Miami Medical College, (Cincinnati) Geo. Mendenhall, Dean; Starling Medical College, (Columbus) S. M. Smith, Dean; Transylvania University, (Lexington) Robert Peter, Dean; Kentucky School of Medicine, (Louisville) R. J. Breckenridge, Dean; Albany Medical College (Albany, N. Y.,) H. Townsend, Registrar; Pennsylvania College, (Philadelphia) John J. Reese, Registrar.

Dr. John G. Adams, "Ancien Editeur," "Ancien Secretaire," &c. &c., is out in the N. Y., Medical Times, announcing his arrival "Just from Paris," in the precise style of certain other professional savans, hair dressers, dancing masters, and ladies' shoemakers, like whom he should put on his sign, in gold letters, "Just from Paris!" He declares his proverb to be, "*See Paris and then live! For you have only commenced to your existence!*" The poor doctors who have not been lucky enough to "see Paris," he considers yet in embryo, and without viability.—*N. Y. Med. Gazette.*

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

AND

T. WOOD M., D..

PROFESSOR OF ANATOMY IN THE MEDICAL COLLEGE OF OHIO, AND OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY.

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Original Lectures, Essays and Communications.

On the relation of Atmospheric Air to the Human Body. By. G. P. HACHENBERG, M. D., Springfield, Ohio. Read before the Clark County Branch of the Ohio State Medical Society.

A combination of oxygen and nitrogen, called atmospheric air, is one of the most extensive and diffusible substances in nature. All things upon earth are in contact with it, and are influenced by it, either in its productive or destructive powers. It forms not merely an external vestment for our earth, and extends many miles above it, but it pervades its deepest caverns and penetrates its every atom and cell.

Atmospheric air was a subject of examination by the ancients. Aristotle, Pliny and Paracelsus, wrote respecting it, but to them not being chemically understood, we may not rely upon their mention of facts and invention of hypotheses, as they were not founded on experiment.

This fluid was first chemically investigated by Boyle, in 1654. But owing to his imperfect apparatus, he failed to suspect that it was not an indecomposable element. Mayow's improvement of instruments and able researches, as also those of Hales, contributed much to a more thorough and satisfactory knowledge of its nature. Upwards of a century

afterwards, Priestley and Lavoisier, completed the important discovery of its two main constituents.

The relation of atmospheric air to the human body, consists in its ingress and egress. The former is accomplished, 1st. By inspiration of the lungs. 2d. By admission into the stomach and bowels by deglutition. 3d. By an æriform endosmosis of the cutaneous surface. And the latter, 1st. By expiration of the lungs. 2d. By eructation of the stomach. 3d. By the bowels, per ani, and 4thly. By a gaseous exosmosis of the cutaneous surface.

I. Inspiration is a vital and mechanical phenomenon. By a dilatory action of the respiratory muscles, a vacuum is formed in the lungs, and the air rushes in, filling its air-cells. When inspiration is completed, the thorax is distended to its ordinary maximum, the blood oxygenated and carbonized air exhaled.

Air is admitted into the stomach and bowels. 1st. With food and drinks. 2d. By deglutition aided by saliva. 3d. by its mixture in bubbles with saliva.

That air is taken into the stomach with nutriment, is proved by auscultatory percussion, by the eructation, by the borborygmi of its air and fluids, by autopsy, and vivisection. It is admitted with the food with the obvious design of the equal and gradual extension of the stomach, and likewise, if not mainly of guarding it from the danger of excess. To this admission may be attributed the limits of the desire and even the power of taking into the stomach more than a given quantity of nourishment. Much air is not favorable to digestion, and hence it must be of transient stay in the stomach. Proof of this is found in Magendie's experiments upon the stomach and intestines of executed criminals. The stomachs of individuals who had taken food moderately one hour previous to death contained air, while little or no air was found in the stomachs of those who had not taken food two, three and four hours before execution.

The small intestines is the main reservoir for the air in the alimentary canal, retaining it within its bounds by its two valves, the pyloric above and the cæcal below. The general inclination to make an alvine discharge after meals, is owing in part to the excess of air admitted into the intestines, this serving as an additional peristaltic irritant. Large lavement of air has been found to be an effectual means for the evacuation of the bowels. The editor of the New York Medical Gazette, August 11, 1841, collected several cases of obstruction

of the bowels for which inflation of air was successfully practised.

The admission of air into the stomach and bowels by habitual deglutition may lead us to suppose that it must have some other effect upon the animal economy than those already mentioned. Considerable air is known to find its way into the alimentary tube, but as so little of it is there detected, in the normal state of the intestines, we may reasonably suppose that what does not escape in eructation and by anal evacuation, is rapidly absorbed into the general system. Chyle fluids, and air contained in the small intestine gives each in its own respective way nutriment to the body, and each leaves its own peculiar effete. Their admission into, and expulsion from the animal economy is of considerable complication. The lacteals take up the chyle, the intestinal veins the more effused fluids, and the cellular tissue, the air; their effete matter finding vent through the general emunctories of the body. The rapidity with which these are transmitted depends upon their respective density, thus the gases are transmitted with a rapid facility, while the more dependent ingredients come next in order. Air thus taken in the bowels is auxiliary to perspiration. It may be supposed that the habit of deglutition serves for the conveyance of the salivary fluid into the stomach to assist the process of digestion. But according to the experiment of Berzelius, and Müller, we must doubt whether the solution of the alimentary substance is better facilitated by its impregnation with saliva, than when water only is used. What purpose then does this fluid subserve in the animal economy? In deglutition, the pharynx and the connecting parts must have an irritant. Air is not a sufficient irritant upon the glosso-pharyngeal branches of the pneumogastric to bring about deglutition, unless by a powerful effort of the will. Hence we may conclude Nature has provided this fluid for the constant admission of air into the stomach, which otherwise could not well take place.

The mixture of air with the saliva, taken into the stomach is a proof of its constant admission. Examining spittle of this fluid, we always find a portion of its bulk to consist of air-bubbles. Liebig makes the estimation, that a man receives into the stomach in a minute one-eighth of a cubic inch of air with the saliva, making one hundred and eighty cubic inches in twenty-four hours. This fluid is secreted, from the salivary glands, and reaches the mouth in its clear unmodified state, where it is brought under a peculiar action of

the tongue and its adjacent muscles, and by a principle of suction is impregnated with bubbles. The readiness with which the buccal cavity may be made air-tight, may be intended to accomplish the impregnation.

The admission of air into the system through the cutaneous surface is not as demonstrable a phenomenon as any of the preceding. That it is admitted, however, is evident from experiments and observations upon some of the most remarkable laws that govern the transmission of fluids and gases. If air is at all subject to the laws of conduction which is obvious when charged with heat and electricity, its ingress will be impeded and some may say impossible. Another difficulty may be presented in the skin encumbered with its excrementitious exudation. Admitting these obstacles, they are, however, not sufficient to oppose their antagonistic laws included in the operations of exosmosis and endosmosis of the animal and membraneous tissues—physiological principles by which the functions of the skin are maintained. In order to maintain the perspiratory process, the excess in the transmission of air through the skin must be in its exudation. Here is apparent a wise provision of Nature in these natural and incidental obstacles to its ingress. This excess must come from some internal source, namely through the mucous membrane, which finds its way through the areolar tissue towards the surface.

Dr. Carpenter cites the authorities and following interesting cases. Dr. Dill relates the case of a diabetic patient, who for five weeks passed twenty-four pounds of urine every twenty-four hours; his ingesta during the same period amounted to twenty-two pounds. At the commencement of the disease he weighed one hundred and forty-five pounds; and when he died, twenty-seven pounds of loss had been sustained. The daily excess of the excretion over the ingesta could not have been less than four pounds; making one hundred and forty pounds, for the thirty five days during which the complaint lasted. If from this we deduct the amount of diminution which the weight of the body sustained during the time, we shall still have one hundred and thirteen pounds to be accounted for, which can only have entered the body from the atmosphere. Dr. Madden cites a case of ovarian dropsy, in which it was observed that the patient, during 18 days drank six hundred and ninety-two ounces of fluid, and discharged by urine and by paracentesis, one thousand two hundred ninety-eight ounces, which leaves a balance of six hundred and six ounces,

or thirty-eight pints to be similarly accounted for. Dr. Watson mentions the case of a lad, who having been almost starved in order that he might be reduced to a proper weight for riding a match, was weighed at 9 A. M., and again at 10 A. M., and he was found to have gained within this single hour, nearly thirty ounces, though he had only drank half a glass of wine in the interim. Dr. Carpenter refers to a parallel instance of a jockey, who had been reduced by abstinence to the proper weight. On the morning of the trial of the race, being much oppressed with thirst, he took a cup of tea, and shortly afterwards his weight was found to have increased six pounds, so that he was incapacitated for riding. The eminent physiologists attribute the increase in these cases to cutaneous absorption, and in the two latter it was probably stimulated by the wine and tea which was taken.

From the experiments of Becquerel and Breschet, there can be no doubt of the important functions performed by the cutaneous surface as a secretory and respiratory organ. Thus it has been observed in cases of asphyxia, that the livid appearance of the skin has given place after death, to a healthful hue, caused by the reddening of the blood in the cutaneous capillaries by the action of the atmosphere upon them.

II. Expiration is a part of the respiratory process, and may be considered strictly vital in its nature. As soon as the requisite changes have taken place in the lungs, between its fluids and gases after an inspiration, the effeted gases serve as an irritant, which results in the first phenomenon of irritation, namely *contraction*. This contraction confined to the respiratory muscles undoubtedly in sympathy with the lining membrane of the air-cells and bronchia removes this irritant and a relaxation follows accompanied with an inspiration.

Eructation of air from the stomach, depends much upon the capacity of the digestive functions, and the nature and quality of the food taken. It may not strictly be regarded as a healthy action, for what is once introduced into the stomach, provided, the stomach and food are in perfect digestive order, hardly ever has an upward tendency. The design of air introduced into the stomach has been mentioned. Its expulsion by eructation is caused either by some error on the part of the functions of the stomach, or by the nature or amount of food taken. It is a process, similar to vomiting, intended often to relieve nature. But such is generally the frequency, facility and inconvenience of eructation that, upon the whole, its pathological action may by some be doubted.

The escape of the gases from the bowels, per ani, has an important connection with defecation, depending likewise much upon the state of the chylopoetic organs, and the nature and quantity of food taken. The *flatus intestinalis* is a part of the effete matter from the air taken into the alimentary tube. Its absence renders defecation impossible; thus the physiology of defecation acts mainly upon a pneumatic principle. A constipation of the gases may take place, as well as a constipation of the fæces, and a diarrhœa of the gases, as well as of the fæces. But not always in exact proportions. Generally where there is a diarrhœa of fæces, there is likewise a free emanation of gases. The egress of air from the lower bowels in its most effete condition, largely altered by carbon, hydrogen, and sulphureted hydrogen. The color is the immediate appendage to the main gross emunctory, and its effete matter consists of solids, fluids, and gases. One of the most remarkable fanctions of the rectum is its submission to the control of the will. Flatus may fill the lower part of the rectum, and its contact with the sphincter threaten expulsion, but the intervention of the will may lay an additional contraction on the sphincter and rectum, and force its contents back through its annulus beyond the source of further annoyance.

The exhalation of air and fluids from the cutaneous surface, and from the lungs are emunctory processes, the maintenance of which are of the highest importance. Sequin assumes the general loss by cutaneous and pulmonary exhalation to be eighteen grains per minute, making four and a half pounds in twenty-four hours, of which two and three quarter pounds is estimated to emanate from the skin. Perspiration is not identical with the process of ordinary evaporation as generally supposed by physiologists. The passages of the air through the skin carry with them not only a humid vapor, but unlike as in evaporation solids, and solids soluble in gases. Were it not for this beautiful provision in nature, a portion of the extraneous two and three quarter pounds eliminated from the skin, would remain on the surface, and then like the fish, the human being would be a fit subject for perpetual ablution. Solids, even in an aqueous solution are never evaporated, unless when in a gaseous form, hence the emenation of gases from the cutaneous surface is beyond every cavil.

The most remarkable case on record, that confirms the theory or the exudation of air from the skin, has appeared in the Dublin Journal of Medical Science, Jan. 1841, by Sir

Francis Smith. A gentleman, thirty-five years of age, informed Sir F. Smith, that he was liable to immense disengorgement of gas from the stomach; that he also occasionally discharged air from the urinary bladder, and had observed an escape of air from the surface of the body when under the water in the bath. Little attention was paid to the last of these statements until the 15th of May, 1840, when Dr. F. Smith was hastily summoned to the bath, to see the phenomenon of the disengagement of air from the skin of his patient. He was found in a bath of seventy-nine degrees, and his chest, abdomen, shoulders and hands, were literally covered with small air-bubbles. When he removed his hands from the bath, the bubbles disappeared; but when he replaced them below the water, the air-bubbles were observed to make their reappearance at first every minute, but gradually increasing in size until the palms of his hands were again coated with them. He frequently wiped away the bubbles from his hands and chest, but they were soon replaced again by others. The bubbles of air ran together, when pushed with the fingers, like globules of mercury without quitting the skin, or becoming loose in the water. This circumstance was observed for twenty minutes by Dr. Smith, and towards the end of that time, the upper part of the bathing vessel where the shoulders had been, were coated all around to the depth of about two inches, with minute bubbles of air.

The ancients believed in the transudation of the air through the animal body, and supposed that it was conveyed through vessels called arteries, and a tissue which they called the areolar tissue. Harvey's discovery of the circulation effectually exploded the former theory, while the latter is a question whose confirmation would be now almost looked upon as a new physiological discovery.

Our knowledge of this tissue is very limited. Its main office is still the same, *vexata questio*, Blumenback, Haller, and Hunter left it. It is composed of an assemblage of fibres, and minute cells, or irregular areolæ, connecting with each other throughout every portion of the body.

Dr. Hunter distinguishes two kinds or cells in the animal body, by the names of adipose and reticular cellular substances. C. A. Bergen had already made a similar distinction (Diss. de Membrana, Celluloso in Haller's Disput. Anat. tom. 3). From the various functions of this tissue, we would make the following divisions: 1st. Adipose. 2d. Serous. 3d. Aeriform.

The adipose cellular tissue contains the fat and adipous substance of the body. This oily substance besides possessing carbon and hydrogen, abounds also in oxygen and a peculiar acid, termed selacic. It varies considerably in consistence, being softest about the orbits and hardest about the kidneys. This tissue is in a measure absent in the scrotum, the integuments of the penis, eye-lids, and in some of the visera as the brain and lungs. The function of this tissue varies according to the age, state of health, and the peculiar habit or disposition of the individual. In youth its secretory powers are most active in the stratum under the skin, in the intervals of the muscles, and on the surface of some of the viscera. In old subjects it is more common in the bones, on the heart, and various parts in the abdomen. General disease of the frame is commonly attended with an absorption of the contents of this tissue, and in particular when of an acute character. In no case is the adipose substance more completely removed than in anasarca, where its space is supplied by a serous fluid.

The serous cellular tissue of the body, though confined principally to the several serous membranes is likewise dispersed through the animal frame in general. In places where the adipose cells are excluded, this tissue is often found very abundant, as manifested when morbidly affected, as in the serous membranes, of the scrotum, eye-lids, &c., The cells of this tissue contain serum, but such is the ready transmission of this fluid through them that it is but sparingly detected in its domicils.

The aeriform cellular tissue with the serous is the basis on the whole animal fabric. They form a connection, and passage between all the parts of the body, however, remote in situation, or dissimilar in organization. This general communication is proved by facts of the most common and familiar occurrence. The air in emphysema, spreads rapidly from the chest to the most remote parts of the body. A similar diffusion of this fluid may be effected by artificial inflation, which is sometimes practised by butchers on the carcases of calves. In anasarca, we have a preternatural accumulation of serum, which often distends the cellular tissue as much as in emphysema. Without the aid of practical anatomy and microscopy, it is impossible to dwell upon this subject with much certainty; and in particular on account of the close similarity of many of the laws that govern the fluids of these tissues. In the process of endosmosis and exosmosis of the

different fluids and gases, their laws go in common, so much so, that we may reasonably suspect, that like Hunter, we can make but two divisions of the cellular tissue, and that upon the uniformity of this law, it is through his reticular substance that both fluids and gases pass. But there is another principle in the economy of nature, which will hardly allow us so sweeping an assertion. All kinds of fluids, when not in communication with the external world, are transmitted by means respectively adapted to their density. This is an invariable physiological law in organic life, and may be considered the secret, but simple order in which nature develops her organic intricacies. And likewise, it is not at all probable that the organization of the animal economy could allow with impunity a hetrogenous mixture of its contents. It is true that a kind of indiscriminate mixture takes place in the reception into the body, and in a limited measure in their different effetes; but there is no instance where the same is allowed in any degree whatever, without injury, where the intricacy of nutrition is carried on; for there nature's greatest fastidiousness is constantly at play. The surgeon is fully aware of this fact, and with what catastrophies are some of his operations met, where a sudden admission of air is allowed into the veins.

Upon these premises we allow the great portion of the adipose matter of the body to the most dependant part of the cellular tissue; and to the serous fluid, which in organization is more delicate than oil to a corresponding substance, leaving for the gases the same allowance.

There is another way of treating this subject compatible with the above theory, and that too without submitting altogether to the given classification. For the transmission of air through the cellular substance, we would allow for its passage cells most delicate and intricate in size and organization. Now, if the anatomist will not allow us a special structure for the conveyance of this fluid, may it not be satisfied with a passage through the interstices of all the other cells, and thereby gain more by it, than if it had special cells of its own. The extreme diffusibility of air through the cells, its non-detention in the same, its rapidity of transmission, gives this hypothesis an elegant share of nice philosophy. This is a question which pathology ought to shed some light upon. Who ever saw a case of emphysema, accompanied with anasarca, where one part of the cellular tissue was equally effected by both diseases. If such a case in truth can

be recorded, I would obligate the anatomist for the discovery of the aeriform cellular tissue. But if no such case has ever been known to occur, I would not know but the latter hypothesis was sufficiently grounded.

Atmosphere that is admitted and retained in the various parts of the animal body, does not always perform its duty in the same way. Its admission into the lungs has one effect, its transmission through the cellular tissue another, and its stagnant homes in the various tubes and cavities still another. Some of these we have already dwelled upon. The relation of air to the eustachian and fallopian tubes are extremely interesting. With the former, it is an important medium in audition with the latter in menstruation, conception, and parturition. The fallopian tubes have a terminal opening into the peritoneal sack, the eustachian into the auditorious internus. They both lead into cavities. The cavity is small in the one where the air only serves as a conduction of sound, but very large in the other, where pneumatic principle of atmospheric pressure is indicated for parturition, and the transmission of fluids through one or more parts of the uterine appendages.

If atmospheric air performs such a multiple form of effects upon the exterior organization of the world, what may we not expect from the same agent, when we know it to penetrate every part of its interior—becoming an intimate associate with every hidden organic particle and cell? If it is the basis of life, of disease and death, what has not physiology and pathology to expect from a knowledge of its relation to organic life?

Air, or air modified, may cause disease and death in the human body in the following ways:

1st. By its undue accumulation within some parts, or organs of the body; as in pneumathorax, emphysema, tympany, tympanitis, flatulence, pneumacardia, &c.

2d. By its undue retention from a functional difficulty in exhalation, as in typhus, malignant diseases, &c.

3d. By the absorption of air impregnated with deleterious substances; as in malarious, contagious and epidemic diseases, &c.

4th. By its partial or entire deficiency; as in asphyxia, epilepsy, and apoplexy of inorganic origin, the spasms of Hydrophobia, convulsions, intussusception of the bowels, &c.,

5th. By its too great an ingress into the system, as in diabetes, diarrhœa, cholera, idiopathic dropsy, and other di-

seases in which the excess of exosmosis is thrown upon the mucous and serous membrane in counterbalance to those of the skin.

6th. As an irritant; as in some of the cutaneous diseases, cancer aggravations, tic douleroux, &c.

7th. As a supporter of animalculæ living at the expense of the human body; as the acarus scabici, pediculi, and the different entozoac wherever found.

The medical powers of air and some of the gases, is a subject which has been carefully considered by Beddoes, Thornton, Hill, Davy, and a few others. But the inquiry is still in embryo, and what little has been done, has not been productive of much benefit. Dr. Loeffler, a German surgeon, constructed an apparatus for the purpose of saturating water with carbonic acid gas, by the mixture of chalk and sulphuric acid, to be externally applied to morbid parts. Mr. Wilstock likewise a German, highly recommended the application of carbonic acid gas to cancerous breasts. In calculous cases the injection into the urinary bladder impregnated with this and other gases, is said to have been efficaciously tried.

The most cases of pulmonary consumption may be considered incurable, as soon as an abcess or vomica has formed, and the air has access to it, for air will be a constant irritant to it, and thus maintain its morbid condition. The benefit that the patient derives in the open air, is from the invigorating effect the air has upon the general system, and never in its favorably modifying the diseased part. Could we introduce a gaseous escharotic with nitro-argentine properties on the morbid parts of the lungs; it with other known remedies would likely as not make this formidable disease more manageable than what it is now.

Cholera, diabetes, idiopathic dropsy, and all diseases in which the exudation is thrown towards the mucous and serous membrane, may be paliated, if not cured by a reversion of these morbid excretions towards the general surface. This practice is as old as the father of medicine himself; and its therapeutical action is supposed to be that the blood is diverted towards the surface, and the interior hyperæmia with its excess of secretion thus relieved. May not there be another advantage in the way; and that is the abundance of the fluids on the surface checking the morbid endosmosis of air into the skin, which may as likely as not be characteristic in these complaints. If this should be so, I would suggest an

adjuvant to the cure of these diseases; and that is the external application of stimulating astringents, and even colodian over a large portion of the skin.

Many of the cutaneous diseases and even tic doloureux may be relieved by shutting up air tight the pores of the skin over the region of the effected parts.

The entozoa and pediculi may be destroyed by suffocation or highly vitiating the air at their habitations. The administration of sulphur and such remedies will suffice to effect this.

Epilepsy and apoplexy have been successfully treated by tracheotomy, with the object of admitting more air into the economy.

In collapse, and that condition of the system, where the blood is highly carbonized, as in the last stages of croup, and other diseases, where from an exhausted condition of the system, the circulation flags, respiration sterterous, the extremities cold and purple, with the nervous system so much blunted that medicine has lost all effect; under these circumstances what may not often be expected from the lavement of oxygen gas into the bowels, or by a suitable apparatus, the gas applied to the skin. We could hardly expect a cure of the disease, solely by this remedy, but it may stifle the complaint, deprive the blood of its deleterious carbon—banish the symptom of coma—awaken the susceptibility of the nervous system, and once more render other medicine efficacious.

A Case of Cephalic Version. By A. T. KEYT, M. D.

Mrs. H. was taken in labor with her eighth child at 8 o'clock, A. M., September, 1st, 1854. I saw her an hour afterward, and on examination, which was instituted immediately, found the os uteri about one-half dilated, and the bag of water protruding into the vagina. By forcing the finger high up, it came in contact with a presenting part which I could not at first certainly distinguish, whether a knee, or an elbow, though I strongly suspected the latter. The external parts being relaxed and dilatable, the hand was passed into the vagina—this was done for the purpose of exploration, and to be prepared to act with promptness in case the presentation should prove to be a transverse one. The presence of the hand induced a vigorous pain and voluntary effort, simultane-

ously with which the membranes were ruptured, the liquor amnii in large quantity flowed off, and an *arm* was forced down into the vagina; thus revealing plainly enough the nature of the case.

I resolved to attempt the treatment by *cephalic version*. Accordingly the hand was carried onward into the uterus. The position of the fetus was determined, as follows: the left arm was in the vagina, the head to the right side, flexed upon the chest, with the face looking downward and backward. My right hand was in the uterus; with this, after repositing the prolapsed arm, I elevated the body of the fetus, while with my left hand pressure was exerted externally over the head in a suitable direction. In this way the position of the child was felt to be changing, and soon I had the satisfaction of finding the head placed over the brim of the pelvis. The operation was accomplished with great ease to myself, and without any great suffering to the mother.

After this the labor was lingering. The pains were irregular and inefficient, and some considerable time elapsed before the head became engaged in the superior strait. This took place with the forehead behind the left acetabulum. The descent through the pelvis was very slow; when the head came fairly down, however, so as to press on the perineum, one strong prolonged expulsive pain forced it externally. The body soon followed.

The duration of the labor was seventeen hours from the commencement, and fifteen hours from the completion of the version. The child was lifeless. From its appearance it must have been dead several hours, though I think it probably was living at the beginning of the labor. There were three coils of the funis around the neck, and a prominent tumor over the vertex, as the result of the protracted labor. I judged the weight of the child between nine and ten pounds. The mother has since done well.

This case illustrates the facility with which cephalic version may be accomplished. I am satisfied that in this case, the operation was performed with far greater ease than turning by the feet would have been.

The lingering nature of the labor I attribute to the want of efficient uterine contractions, though perhaps it was in part due to the head not presenting in the *most* favorable position, and in connection with its rather large size. The death of the fetus I think was owing to the long time the head was subject to pressure in its passage through the pelvis.

Two Cases of Complicated Labor, each followed by a Retained Placenta. By T. Wood, M. D.

The few moments immediately following the delivery of a child, are the most anxious and trying to the patience of the accoucheur, as well as the most critical to the mother, of any that he meets with in the whole circle of his practice. The proper commencement of the extra uterine life of the child—the continued contraction of the uterus—the delivery of the placenta—the danger of that fearful form of hæmorrhage which is incident to this period—and a contracted os, with a retained placenta, all crowd upon his attention, and demand the prompt exercise of his best judgment and skill, in such rapid succession, that his position, for the time, is scarcely less arduous and responsible, than that of a skillful general, charged with the defence of a city, against the assaults of an invading foe. It is true, that there are other periods, during the progress of parturition, and the recovery, that involve tact, skill, and responsibility, but there is no other, in which so many evils of the highest magnitude may be crowded into a single point. Uterine hæmorrhage, that many-headed monster, that breathes the cold vapors of death on so many of the fairest forms of creation, may lurk unseen and unsuspected, in the parturent chamber, to be revealed in the trying and critical moment following delivery; and even where it has been suspected, or discovered in the early stages of labor, as in *placenta pravia*, partially detached placenta, &c., it seldom strikes the fatal blow until the child is expelled; but it expands its force between that time and the time that the placenta is successfully removed from the cavity of the uterus. Hence arises the anxiety that every experienced practitioner feels in the presence of a woman, whose child is delivered, and the placenta yet in the uterus; and hence arises his consternation, when, on passing his finger along the cord to the os, he finds it closed against placental egress into the vagina, and especially if he discovers a stream of blood flowing through the contracted orifice of the womb.

It is not the fact, *per se*, of a retained placenta that makes this condition so alarming, but the fact that at any moment in the duration of this condition, uncontrolable hæmorrhage may ensue.

I have been singularly fortunate in meeting with very few cases, where difficulty was experienced in delivering the placenta; but having had two cases in the past summer that pre-

sented, to me, many points of exciting interest, I have thought a report of them might be acceptable to the readers of the "Lancet."

Case 1st. Mrs. R——s gave me a summons on the 12th of June, at about 3 o'clock, P. M., to attend her in her third confinement. I found her in labor, with pains quite strong and frequent. The os uteri was dilating freely, and everything seemed to promise a speedy delivery, yet the woman was anxious and alarmed at the condition she was in, as she said, she had nearly lost her life in both her former confinements. The presentation could not be ascertained at this time, as the membranous sac of water was so firmly distended by the constant contraction of the uterus, even when not in pain, as to prevent a satisfactory examination. In a short time the pains subsided so much that I left, after giving directions to the husband to call me again as soon as the waters were discharged, which I supposed would take place when the pains returned. At 9, I was again summoned, and found the membranes ruptured, and the pains rapidly following each other with considerable force.

On making an examination, I found a breech presentation, with the sacrum of the child resting in the hollow of the sacrum of the mother, and its thighs flexed upon its abdomen, and pressing firmly on the pubic rim of the pelvis. The first point of the child that the finger touched in the examination, was the genital organs, (it being a male,) and, throughout the ensuing tedious labor, the singular condition existed of the penis and scrotum occupying the vulva, enormously distended by the blood forced into them, as in tumors of the scalp, where the labor is protracted, with a head presentation. For a considerable length of time before delivery, the genitals were completely in the world, while the nates of the child were firmly embraced by the resisting, though tensely stretched peritonæum.

Although the pains, and the expulsive efforts of the mother were almost unceasing from the time the membranes were ruptured, the progress of labor was exceedingly slow, lasting from before 9 until after 12 o'clock. Strong traction was made, frequently upon the thighs of the child, both by myself and my friend, Dr. J. P. Walker, whom I had called in consultation, but with very little apparent benefit.

After this child was delivered it was soon discovered that another one yet remained in the uterus, presenting its head at the superior strait of the pelvis.

The woman was exhausted, bleeding, and faint, with an entire cessation of all pain. An unavailing effort was made to deliver the placenta. We then gave some brandy and water to the patient, applied a bandage firmly over the abdomen, and placed a tampon in the vagina, anxiously waiting for, and expecting a return of the pains. The bandage and tampon controlled the hæmorrhage, but the pains did not return in the slightest degree until near three hours were lost in fruitless efforts to bring them on by friction over the uterus and stimulating teas. A dram of ergot was procured and one-third administered in infusion. At the end of fifteen minutes another third was given, the first portion having produced no effect. No pains appearing at the end of the next fifteen minutes, she took the remainder of the ergot, but she soon began to complain of slight pain in the back; and, in five minutes more, a powerful *ergotic* pain commenced, which did not cease until the child was born, although when it began the head was not engaged in the superior strait.

The placenta of the second child was now readily removed, but, to our great annoyance, we found that the cord of the placenta of the first child had been separated by the passage of the second child, and the mouth of the womb was so firmly closed as to prevent the passage of the hand, or even the finger, to extract the placenta. Various efforts were made both with the hand and the blunt hook to penetrate the uterus and extract the placenta, but it was impossible to succeed, and we reluctantly left, after acquainting her friends of the danger of her situation.

About five hours after leaving her, we were called to see her in haste, as she was thought to be in a dying condition. We found her bleeding profusely, pulseless, nearly insensible, blanched, and covered with a cold sweat. The hand was passed into the vagina, but it could not be made to enter the uterus. Lumps of ice were thrust into the vagina, and cloths, wet with ice-water, were applied over the uterus, which, together with a firm bandage and tampon, stopped the bleeding.

The whole course of the labor had been marked by most embarrassing positions, but here the condition was truly formidable. An obstinately retained placenta, strongly threatened fatal hæmorrhage, and peritoneal inflammation—beyond this we could not hope for a recovery, in this warmest of seasons, in the warm month of June, from the effects of absorption of poisonous fluids from the putrifying placenta in the uterus.

℞ Acet. Plumb. gr. x.
Opii. Pulv. gr. ii.
M. ft. Pilu. No. v.

S. One to be taken every hour.

14th. No return of hæmorrhage. Abdomen tympanitic and tender to the touch—pulse 120.

Patient complains of pain in the head, face flushed, with an anxious countenance—has had no expulsive pains, and slept some through the night. Cold applications withdrawn, and the tampon renewed—uterine tumor firm—mouth of the womb still contracted, and the placenta retained.

℞ Ol. Ricini ʒi.
Ol. Teibinth ʒi.

M. S. To be taken at once.

15th. The bowels have been moved freely. Tympanitis and peritoneal tenderness subsiding—no pain in the head, or flushed countenance—pulse 100—no change in the condition of the uterus or placenta—a slight quantity of fœtid matter discharging from the vagina—but no hæmorrhage.

As at this time, all hope of getting her cleared of the placenta, except by the process of putrifaction, was lost, it became a matter of much importance that we should now adopt the most judicious plan of conducting her through this period; and I am indebted to my friends, Professors Armor and Marshall, for some invaluable suggestions.

1st "Wash the vagina and uterus frequently with warm water and the chloride of sodium so as to prevent the putrid fluids from laying long in contact with the living structures."

2d. "Give the patient largely of diluent drinks—barley water, rice water, gruels, &c., so as to keep the vascular systems constantly in a state of repletion, thus establishing a depurating rather than an absorbing condition of the system." Those suggestions were faithfully applied from this day to the end of the treatment. Tepid water, combined with chloride soda, in proportion of one part of chloride of soda to six of water, was thrown into the vagina several times a day, with a female syringe, and the patient drank as much gruel, rice or barley water as the stomach could contain. This treatment was continued without change or addition, except an occasional laxative, up to the 20th; eight days after confinement. The fœtid discharges from the uterus were very abundant and offensive, notwithstanding the free use of the chlorine. Daily examinations were made in the hope of finding the placenta disengaged, but no change was apparent until the

20th, when the os was found to yield slightly to the pressure of the finger, and about one-fourth of the placenta was broken off and removed in detached pieces. On the 21st, the os was still yielding and the putrid mass resting against it, so that a considerable portion was then removed, and on the 22d the balance was scooped away, without much difficulty, with the finger. It was a remarkable fact, that during the whole period that the placenta was retained, the woman experienced no uterine pains whatever; nor were pains excited by our efforts at extraction in the last three days, but all the time the uterine tumor was well-defined, and the body, as well as the mouth, appeared to maintain a state of rigid tonic contraction.

After the third day, there was very little abdominal or uterine tenderness. On the afternoons of the last four days, she had slight chills, followed by a hectic flush of the cheeks, thirst, head-ache, &c., followed by profuse perspiration, but none of these symptoms appeared after the placenta was removed.

From this time her recovery was rapid, and in a few days she was about, attending to her household duties.

After getting up, she was afflicted with abcesses at the ends of her fingers, resembling felons, and by the 4th of July, all her fingers and thumbs, except two, had been attacked with painful inflammation and suppuration.

Was this accidental, or was it caused by the absorption of putrid fluids by the uterus?

Case 2d. Mrs. K——g, aged 40—married ten years—first pregnancy—was confined on the 22d of September. She was a strong, muscular, hard-working Irish woman, with constitutional powers of endurance sufficient to overcome almost any difficulties. Labor commenced at one o'clock in the morning, and continued violent and painful, with very slight intervals between the pains, until four in the afternoon, or about fifteen hours, before the child was born.

The head presented in the first position; but the difficulties were, a rather small pelvis—large child—a rigid os uteri, and a vulva and perinæum that dilated about as reluctantly as if they had been constructed of sole leather.

I have seldom met with more powerful throes of labor, even in the last stages, than attended this from its commencement to its termination, and yet to the last, the woman's strength did not seem to be in the least exhausted.

Several regiments of sympathizing neighbor women, of whom she had plenty, had mustered in rank around her bed, during the day, to give her comfort, courage, and assistance, but they had invariably become tired, leaving the room after giving a gloomy prognosis of the case; and when the child was born no one was present but her faithful nurse and myself.

She gave birth to a fine large living child.

After the child was removed, I made traction on the cord, and found that the placenta was yet in the uterus, and the os so much contracted as to scarcely admit a single finger. There was considerable bleeding, but not the slightest uterine pain, though the uterine tumor was firm and distinct to the hand on the abdomen. Two hours were spent in fruitless attempts to dislodge the placenta, friction of the uterus failed to excite expulsive pains, and the os refused to admit the hand; the uterus had labored hard all day and seemed obstinately determined to take repose in the condition it was then in. I left her at 6 o'clock, in the hope that something might be gained by time and patience, but returned at 8, in company with Dr. P. G. Fore. At this time there was no pain and very little bleeding, and things about as I had left them. Dr. F. made several efforts to dilate the os with his hand, but could not succeed. We then gave the patient half a drachm of ergot, in infusion, which brought on a pain in about ten minutes, and in fifteen, the placenta was expelled; thus ending one of the most tedious, uninteresting, and annoying labors that it has ever fallen to my lot to attend.

Correspondence.

Messrs. Editors:

In perusing your notice of the "Types of Mankind," in the last number of the Lancet, my attention was arrested by the following sentence: "The world is occasionally startled by the appearance of an author who threatens to subvert the revealed truths of the Holy Bible, and to undermine the foundation of all true religion, and throw us back into the confusion of chance, without an anchorage for our hope of immortality." On reading this sentence the question at once arose in my mind—why is it that the religious world is thus

from time to time, startled by the investigations of scientific men? and why is it that men who believe the Bible to be the word of God, are thus startled at every new fact discovered in the works of God and creation? The answer to these questions, it seems to me, is to be found in the fact that the great mass of Christians at the present day entertain entirely too low an estimate of the Bible; they regard it very much in the same light as they do the productions of men, and seem to suppose that the information which it was designed to impart, is to be found immediately on the *surface* of the sacred page. They seem indeed to entirely ignore the fact that *God spake as never man spake;* that his words are *spirit* and *life;* and that the kingdom of heaven is like a treasure *hid* in a field.

Hence it is they regard the sacred volume as a text-book of science, and whenever the investigations of scientific men bring to light facts which conflict with the *literal* reading of the *Word*, they either reject the facts altogether, or suppose an error has been committed by the inspired writer, thereby degrading the Bible still lower, and granting the sceptic all he desires, viz: that the Bible does contain erroneous teaching. Thus it is that many are led to reject the Bible entirely, while those who profess to receive it as the word of God, do so with so many *mental reservations*, as to amount almost to the same thing as a total rejection.

Although what I have stated is true in regard to a large majority in Christendom, there is a very respectable minority, generally regarded as *heretics* and *enthusiasts*, who take an entirely different view of the subject; who believe the Bible to be indeed the *Word* of *God;* that the language of the Word was dictated by God himself; and that it is not to be supposed that the great *I Am* ever commits an error. They believe the Word to have been written for our *spiritual* instruction, and not for the purpose of teaching *natural* truths. Whenever, therefore, the researches of science develop facts which conflict with the *letter* of the Word, they are not alarmed for the safety of the Bible, for they remember that it is written, "the *letter killeth, the spirit giveth life.*"

If the geologist could demonstrate beyond the possibility of a doubt, that the earth is a million of years old, and that men lived and died upon it five hundred thousand years ago, they could admit the statements without supposing for a single moment that they conflicted in the least degree with the *true* meaning of the narrative in Genesis; or if Dr. Nott,

Mr. Gliddon, or any other scientific man, could produce the most incontestible evidence to prove that ten thousand pairs of each of the different races of mankind were created by God, instead of a single pair, as is commonly supposed, it would not affect their understanding of the language of Genesis in even the slightest degree. They could admit such statements, and all others that may ever be deduced from an investigation of the phenomena of nature, and yet maintain that the *true* meaning of the book of Genesis will forever stand unshaken.

According to the views of the first-mentioned class of Bible receivers, the book of Genesis is a revelation of facts concerning the mere *natural* man and the *natural* world; while in the estimation of the other class there is no reference whatever to either of these subjects, but to the creation of the *spiritual* man, or the establishment of the kingdom of God within the human soul; understanding the *natural* objects spoken of as being typical of *spiritual* things, or as Paul expresses it, "For the *invisible* things of God from the creation of the world *are plainly seen*, being understood by *the things that are made.*"

My design in this letter is not to discuss the question now being extensively agitated, "Is man one or many?" but to show that the developments of science can never conflict with the *right understanding* of the word of God.

The *orthodox* portion of community have no hesitation in at once pronouncing any one a heritic who dares even to intimate that the different races of mankind had not their origin in a single pair; but it will be remembered that *orthodoxy* denounced the early astronomers as heretics, and thought it was doing God service by imprisoning and torturing them for asserting that the earth revolved on its axis, and around the sun, contending that the Bible teaches that the sun revolves around the earth. The facts of science triumphed over an erroneous interpretation of Scripture in the latter case, and doubtless will ultimately do the same in the former.

Thus it is that those who regard themselves as the peculiar friends of the Bible, and all others as heretics, instead of at once taking up an elevated and defensible position, have to be driven, as it were, inch by inch from an erroneous to a true understanding of the Sacred Scriptures, by the very persons they regard as heretics and enemies of the Bible.

The "Arcana Celestia" of Swedenborg unfolds the true meaning of the book of Genesis, and shows that each state-

ment thereof contains important spiritual instruction which is vastly more interesting to man as an immortal being destined to spend the ages of eternity in the spiritual world, than any amount of information concerning the creation of the natural world of which he is merely a temporary inhabitant. It will be seen by an investigation of that work, that when the Scriptures are rightly understood there will no longer be any occasion to fetter either the minds or bodies of scientific men, for uttering the teachings of God in nature, and that the Bible differs from all other books in this, that being the production of an *infinite* being, it possesses an *infinitude* of meaning.

URBANA, July 21st. H.

Progress of Medicine.

GERMANY.

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The formation and diffusion of Cancer Cells in the neighborhood of Cancer, and their importance in an operation.

By J. L. C. SCHRODER VAN DER KOLK.

As long ago as 1847, in the transactions of the Utrecht Society in relation to the origin, development, and diffusion of cancer, the author communicated the observation, that in the parts surrounding a cancerous tumor, at times somewhat widely diffused, in the tissues which appear to the naked eye still perfectly healthy, small cells arise, which increase in size and unite in groups as you approach the tumor. These investigations have since been prosecuted, especially upon labial or epitheliel cancer, which is especially adapted thereto. In such a case, if we examine microscopically the bordering parts, apparently healthy, we find there in various quantity, according as the part is more remote from the cancer, small cells and nuclei, and finally a granular substance and fat granules between the healthy tissue. Many times we see near one anotehr the trasition from nuclei, about which a cell-membrane is yet scarcely commenced, to perfectly developed epithelium cells. With a strong magnifying power we see also the transition of the granular substance and of the nuclei into cells, and how a soft, more or less granular substance is placed about the nuclei, so that a cell arises. Mostly, however, the nucleus lies already in the middle of the cell. The perfect cells, also, still show granular substance in the interior. The nuclei and cells

diffuse themselves especially along the cellular tissue between the muscular fibres; but also upon the latter themselves occur nuclei and scattered cells. In other places, merely granular substance shows itself, and the first nucleal formation among the cellular tissue; between them are fat-granules, which are clearly distinguished, by their dark contours, from the little nuclei contained in the formation.

An alteration in the muscular fibres is perceived with difficulty. If they are even already covered with nuclei and small cells, yet, by proper examination, we still recognize the horizontal stripes. At many points, the latter seem really to disappear, and the muscular fibres have a more fibrous appearance. But, in particular cases, a dissolution or degeneration of the muscular fibres may be recognized, so that these fall into horizontally separated elements. Fat granules are then interspersed, as if the muscular fibres underwent the fatty transformation. When the muscular fibres are wholly covered with nuclei, so that they can scarcely be recognized in a partial manner, they appear to be thinner; at least, they are more or less supplanted by the cell and nucleus formation in the interjacent cellular tissue. In the nerves, a degeneration cannot with certainty be detected in labial cancer. Even if the nervous bundles are wholly surrounded with epithelium cells, yet in the neurolemma no trace of degeneration is exhibited. Only at particular points are, at times, nuclei and small cells perceptible between the nervous tubes, but far more sparingly than between the muscular fibres. In two instances, single nerve-tubes appeared to run off into the cellular tissue, covered with epithelium cells. In other cases of cancer, on the other hand, we find degeneration of the nerves appearing later. Also in the follicles of the beard, and in the sebaceous glands, an unusual number of epithelium cells and nuclei occurs, through which all parts become supplanted, and finally degenerate through fat-metamorphosis and fall into dissolution.

The cause is yet unknown of that active cell-formation through which, in the humors of the parenchyma of yet healthy parts, new cells appear continually to arise from small nuclei and fat-granules, which more and more present themselves as epithelium cells. A change of substance and a transformation, however, certainly takes place between these cells and the interstitial fluidity existing between the cells of the tumor contains thereby other constituents than the parenchymal fluidity of the bordering healthy parts. But both kinds

of fluidity now flow together in the bordering parts, and commingle; and hence it is easily explicable, that in the surrounding tissues the same nuclei and cells arisè as in the tumor itself. The diffusion of the parenchymal fluidity, along the course of the cellular tissue, among all parts, explains why the new nuclear and cell formation follows exactly the same course between the muscles and other parts. But these parts resist for a long time the pressure of the new formations, and with the naked eye we yet perceive no alterations in them when the microscope already shows the cell formation.

The importance of these cell formations, in operative cases, is subject to no doubt. Thus Prof. Suermann wished a microscopic investigation of an extirpated lip, concerning the ulcerative or cancerous nature of which certainty was desired. The formation from epithelium cells left no doubt as to its cancerous nature. When fine lamellæ of the cut edges of the extirpated piece were brought under the microscope, granules, nuclei, and already developed epithelium cells were to be seen; from whence it was concluded, that beginnings of the progressive evil might also be contained in the unextirpated parts of the lip, although the section was carried from one and a half to two sections distance from the real tumor. A return of the mischief was therefore to be feared. Notwithstanding the rapid and favorable healing of the wound, within three months new growths arose in the lip, which, after frightful destruction, finally produced a fatal termination.

The author has also of late, in several cases of extirpation of labial cancer, found nuclei and epithelium cells in the cut edges; the brevity, however, of the time passed since the operation, has thus far determined no judgment as to the result. A solution of these epithelium cells, through the inflammation following the operation, is hardly supposable, and, at times, the wound from the operation is accustomed to heal by the first intention. Of a solution through suppuration, there cannot be a question. It will depend upon the degree of development of the remaining cells, upon the degree of the subsequent irritation, upon the afflux of fluids and the change of substance thereby effected, whether these cells begin to develop themselves anew after the healing of the wound.

It is farther to be considered, that the degenerated parenchymal fluidity not only advances slowly in the surrounding parts, and induces ulceration, it is also taken up by the lymphatic vessels, and similar growths arise in remote parts.

This occurs especially in true cancer, but it has also been observed in epithelial cancer. Donders relates a case of labial cancer to the author, in which the glands of the throat and larynx were swollen and filled with epithelial cells. A diffusion of epithelial cells has also been observed by Lebert, Bennett, Hannover. It may seem doubtful, whether in such cases of diffusion of epithelial cells, we should admit merely a chemical uleration of the infected and absorbed parenchymal fluidity, or a penetration of ne nuclei and cells into the lymphatic vessels. The altered parenchymal fluidity is, however, more probable, since we see that cancer cells may be found even in a structureless membrane enveloping the muscular fibres, the sarcolemma, through which nuclei do not penetrate. In a case of epithelial cancer of the tongue, the author found not merely epithelial cells deep at the root of the tongue between the muscular fibres, but also a cancerous tumor in the throat, which had passed into open cancer and contained common cancer cells without epithelial cells; which would show that in epithelioma, from absorption of parenchymal fluidity, many times general infection also, and secondary cancer cells of a different character, may be formed. Lebert and Hannover deny that epithelial cancer can pass into true cancer, and that one form induces another; therefore, when carcinoma follows upon epithelioma, Hannover, admits only a combination of the two forms. According to Bennet, on the other hand, the epithelium-cells, at times the young ones, can take on the character of true cancer cells. It is also a question, whether parenchymal fluidity from an epithelioma may not be altered by the lymphatic vessels, and perhaps, also, by the blood-vessels, in such manner that it, elsewhere, for example in the glands, may give rise to true cancer cells, although in other circumstances, epithelial cells might be formed. The origin of true cancer in epithelioma labii can scarcely be otherwise explained. Schrant is also of the opinion, that true cancer may arise from epithelioma.

In common cancer and in medullary sarcoma, the cells are diffused in like manner around the tumor, as in epithelioma, while the parenchymal fluidity also induces the cell formation. This was clearly shown in a medullary fungus upon the leg of a woman of eighty years, by which the gastrocnemius had been for the most part, destroyed. Under the microscope, it was seen that the primitive muscular bundles had wholly lost their structure in the parts most affected; the form

of the fibres could still be seen, but only a mass of nuclei were distinguishable, ranked more or less lengthwise, one after another, and enclosed in the unaltered sarcolemma. In other places, the primitive muscular bundles were yet remaining, and had also their horizontal stripes, but they were transparent, and beneath the sarcolemma covered with cells and permeated by fat droplets. Finally, at many points the primitive bundles had undergone the following important alteration: the fibres lay in their sarcolemma transformed into longer or shorter fibre cells, here thickly upon one another, here again in less number, and there appeared to be less displayed a succession of rows of nuclei and cells, and fibre cells. Some cells also lay without upon the sarcolemma. Hence it follows, that the pathological parenchymal fluidity may also exude through the sarcolemma, in which case the cell-formation takes place within this sheath as, earlier, in the surrounding cellular tissue. The parenchymal fluidity must also suffer such an alteration under the influence of the cancer cells, that it becomes everywhere adapted to the production of like cells and nuclei. Through the formation of such cells within the sheath, the nutrition of the muscular fibre becomes disturbed; it separates into long, extended portions, which resemble the involuntary muscular fibres, and is at last wholly destroyed. The sarcolemma appears to resist a long time. Bennet has also, in part, observed and described these alteration of the muscular fibres.

The cancer cells also affect the nerves in an important manner. The condition of the fibular nerve, in the above-mentioned case, furnished among others a striking example. In the parts suffering most, no primitive fibres were longer to be distinguished, the nerve appeared, in consequence of atrophy of the nerve-tubes, to consist only of cellular tissue. Bennet has also observed the disappearance of the nerve-fibres.

The same diffusion of cancer cells, the author has also observed in the interior parts of the body. This formation of cancer cells can even be extended through the walls of the blood-vessels, and at times, of the veins. In fungus medullaris of the liver, and also of the stomach, a portion of the cancerous mass found in the cavity of the portal vein, where it might extend itself even to the smaller branches, without being surrounded by a membrane. The author here takes the opportunity to recall an opinion expressed by him long since, and confirmed by manifold recent investigations, name-

ly, that in fibrous tumors and in carcinoma, we can fill with injections only fine capillary arteries, and that no veins appear to occur therein, which are in communication with the other veins. He possesses many preparations in which the healthy parts about the cancer, are colored deep blue by the numerous veins, while the tumor itself is colored wholly red, only by arterial capillaries. The blood in cancer appears to return to the arteries, so that also a new capillary net-work arises between the veins, similar to the portal system. Upon further extension of the tumor, veins may become included and apparently pass through the cancer; but these are clearly older, larger veins. In the meantime, the finer veins appear to be destroyed or obliterated; for, in cancer of the stomach, we no longer find any capillary veins in the parts where they must have been formerly contained.

From what has been hitherto said, it is clear that when once an epithelioma, or any other cancer, is formed and attains a certain maturity or development, the diffusion of the evil takes place, in so far as new cells are constantly formed from nuclei in the parenchymal fluidity of the contiguous parts. Many times the nuclei are multiplied in a cell already formed; these nuclei then become cells, and there arises a maternal cell, which at length bursts, so that the inclosed cells can issue free. This latter, however, appears only to happen in carcinoma or medullary cancer, not in epithelioma. The parenchymal fluidity must also acquire the property of forming homogenious cancer cells through an interchange of constituents, which must necessarily take place between the already-formed cancer cells and this fluidity in the surrounding parts, is the cause of the local diffusion of cancer. The surrounding parts not seldom succumb to the cancer; but, between, and in them, are developed cancer cells, whereby the other tissues become broken up and disappear.

It has been supposed, that the destruction or the disappearance of the surrounding parts was chiefly the result of the pressure suffered by these parts from the increasing cancerous tumor. But this is not so. The altered parenchymal fluidity calls forth at first in the cellular tissue, afterwards also in the textural parts themselves, the process of cell-formation, in the muscular fibres, in the nerve-tubes, etc. At the same time an abundant formation of fat takes place, through which the healthy constituents appear to become more and more broken up. They are, therefore, much less destroyed by pressure than by defective nutrition. But the pathological parenchy-

mal fluidity is diffused not merely in the immediate neighborhood of the cancerous tumor, it is also conducted by the lymphatic vessels, to the nearest glands, as the above mentioned cases show. In medullary sarcoma of the liver, or of the stomach, the author also several times saw the lymphatic vessels as thick white cords running along the sternum, and they could be traced to the likewise swollen thoracic duct. The contents of these distended lymphatic vessels corresponded perfectly with the cells of the medullary sarcmao; the pathological parenchymal fluidity was also carried by them into the blood and throughout the body. But this absorption probably did not take place merely through the lymphatic vessels, but also through capillaries and veins which were washed by the parenchymal fluidity. If this absorption has been in sufficient quantity, then follows a secondary formation of cancer cells, and an outbreak of cancer in other parts.

Remarkable was a case of cancer of the tongue, which had destroyed the whole left half of the organ. The patient died suddenly from a profuse hemorrage, the result of laceration of the ranine artery while eating. This artery in most of its course, was changed into a dark band, and the ligual nerve, also, where it entered the cancer, was much thickened, and further along a black slimy strip, which had been seen during the lifetime of the patient, lying in the mouth. On the right side, the nerves were yet apparently healthy; but in the lingualis, and still more in the hypoglossus, were found little inequalities, as if tubercles had been developed in the interior. In the last named nerve, also, upon section, cancer cells actually showed themselves, and partial atrophy of the nerve-tubes. A direct penetration of the parenchymal fluidity into the diseased hypoglossus, is quite improbable; a secondary cell formation took place here, through general infection of the fluids. Inflammation or supperation of the surrounding parts does not easily affect the nerves; cancer, on the other hand, appears easily to produce disturbances in them. In a case, for example, which the author examined, the whole ischiatic nerve was destroyed at its exit from the os sacrum, and no longer in connection with the interior parts. The burning, lancinating pains, in the course of the cancer, appear, also, to depend upon the formation of cancer cells in the neighboring nerves; they seem then to show that the cancer is no longer local, but has already begun to spread to contiguous parts; from which the operator's hope of a favorable issue must be much diminished. Unfortunately, the operation is

frequently undertaken too late, as well from the fault of the patient, who keeps the disease too long secret, as through the fault of the surgeon, who will only resort to this remedy when there can no longer be any doubt as to the exis tnce of a cancer. The frequent fatal relapses after delayed operations, should be an inducement to remove every node or induration from which cancer may be afterwards developed. The operation then belongs to the unimportant, and no disadvantage arises, even if the tumor prove to be of the benignant kind.

This becomes still clearer when we follow the formation of scirrhus and of cancer. If we examine a scirrhus in the stage of the hard node, we find nuclei and very small cells, which become enveloped by fibres. The scirrhus grows but slowly; no great interchange of substance yet takes place in it. Though the slow increase of the cells, and the enlargement of their groups, the surrounding cellular tissue becomes stretched, and the hardness of the tumor increases. Beyond the fibres enveloping the scirrhus, no nuclei and cells yet occur in the neighboring tissue, and we may yet consider the evil as a local one. In genuine cancer, on the other hand a more rapid cell-formation follows, the cells are larger, and are not eperated from the neighboring tissues by such thick layers of cellular tissue and fibres; the whole tumor losses its hardness, because there is more parenchymal fluidity, and thence arises a more active interchange of substance with the existing cells, which are therefore also more readily reproduced. If the tumor is luxuriant, it then feels soft, it is designated as medullary sarcoma, and consists almost entirely of cells, many times without a trace of fibres.

From this developement of cancer we can only expect, in the first period, since from the slight interchange of substance the cell-contents has not yet diffused itself in the mass of the scanty parenchymal fluidity, that the contiguous parts would not be penetrated thereby. The increase of the node shows greater activity in the tumor, a more lively interchange of constitutents, and a diffusion of the infected parenchymal fluidity. If burning shooting pains occur, we may then consider it as certain that the parenchymal fluidity has already penetrated the nearest nerves, inducing new cell-formation, together with destruction of the nerve-tubes. In the cancer itself no nerves occur, and it possesses no feeling.

In extirpation of a cancer, not merely much of the apparently sound parts must be removed; but, after the operation, the cut edges should always be accurately examined with the

microscope, since if at one or more points, granular substance, nuclei, or cells are found, the diseased part has not been completely removed. In such a case, we must resort to more extensive extirpation, or at least to the application of caustic, in order to prevent a relapse. Bennet has also directed attention to the necessity of microscopic examination immediately after the operation, and maintains that every suspicious tissue should be examined before we close the wound.

The author takes this opportunity to recommend a strong solution of iodide of potassium applied upon an already open and fungus cancer. By covering a fungus with compresses wet in such a solution, it not seldom disappears and becomes resolved, and the disagreeable smell and bleeding ceases, while the remedy produces no injurious effects upon the surrounding parts. In a case of cancer of the tongue, with such an intumescence that the taking of food was difficult, the patient took continually such a solution in the mouth; the fungus became softer, and, after a couple of days, fell off, so that the tongue again resumed its normal size. Relapses are, of course, not obviated by it. This patient died subsequently from cancer of the throat, but his life was at least lengthened by this means. If we apply the salt in form of powder, the fungus disappears still quicker, and sphacelates without disadvantage to the other parts.

From the preceding, the author derives the following conclusions:—

1. Through an interchange of substance between cancer cells and intercellular fluidity, the latter acquires the property of generating new homogeneous nuclei and cells.
2. This intercellular fluidity stands in connection with that in the surrounding healthy parts. The latter obtains thereby the same constituents, and the disposition to form similar cells, which now arise along the course of the cellular substance in the surrounding healthy tissue.
3. From their minuteness and small quantity, the nuclei and cells are not perceptible with the naked eye; and thus the surrounding parts may appear perfectly healthy, although they bear in them the germ of a progressing cancer.
4. It is therefore important that in extirpation, the cut edges of the healthy parts should be accurately examined for cancer cells, with the microscope.
5. The burning, shooting pains in cancer may be consi-ered as a proof that cancer cells are diffused to a considerable extent, and to the nerves; they show that we have no longer

to do with a merely local evil, and that no very certain result can be expected from the operation.

6. By absorption of the infected parenchymal fluidity, by means of the lymphatic vessels and veins, the whole body appears to become more or less infected,' so that secondary cancer arises in remote places and parts, and an operation is no longer to be thought of.

7. The altered parenchymal fluidity penetrates into the organic tissues. The sarcolemma of the muscular fibres, and the walls of the nerve-tubes appear to take it up, and there arise, in the interior of both, similar nuclei and cells. Hence comes the absorption of the muscular fibre and of the nerve-contents, and the deposition of fat; the former become consumed and annihilated, while their envelopes, the sarcolemma, and the wall of the nerve-tubes, still remain.—*Schmidt's Jahrbucher, May*, 1854.

ENGLAND.

Case of Popliteal Aneurism treated by Ligature of the Superficial Femoral Artery. By James Alexander, Esq., Surgeon, Wooler.

Robina Ogilvie, æt. 36, September 20th, 1853. There is a large aneurism on the inside of the right thigh, a short distance above the knee. The tumor is fully as large as the closed fist, and pulsates freely. The pulsation is altogether and at once arrested by compressing the artery at the groin, and recommences immediately on removal of the pressure. There is a moderately loud blowing sound in the tumor. The tumor bulges on the inside of the thigh, and also toward the popliteal space, as if pushing the internal hamstrings before it. The popliteal space proper is not occupied by the tumor, but is merely incroached on by the upper and inner side. The chief bulging of the tumor is on the inside of the thigh, the summit of it lying at a distance of two inches from opposite the upper margin of the patella, and ten inches from the pubes. The circumference of the thigh at the tumor is fifteen inches and a half; that of the other thigh at the same part being thirteen.

The heart and aorta appear to be healthy.

Previous History.—She can assign no cause for the swelling. She noticed, first, about two months ago, when engaged in field work, stiffnes and pain in the part, but only three weeks ago, felt a distinct swelling, with beating in it and severe pain. She left Edinburgh about a month ago, and has walked here for the harvest. For the last fortnight she has been confined to bed, or the house, on account of the swelling and the pain.

She has now severe and constant pain, chiefly opposite to the internal condyle, and also between this and the tumor. There is also pain down the leg to the ankle, on the outside. There is no œdema of the foot or ankle, although on this side these parts seem somewhat thicker than on the left side.

About twelve years ago she was a patient in the Edinburgh Infirmary, with what seems to have been paralysis of the right portio dura, and afterwards general paralysis.

Sept. 20th.—To-day I placed a ligature round the superficial femoral artery. The artery was tied four inches below Poupart's ligament. The operation did not present any unusual difficulties. The fascia lata was freely opened, and on turning out the edge of the sartorious, the vessel was seen through its sheath. The latter was pinched up with the forceps and opened to a limited extent, and the cellular tissue on each side of the artery scratched aside with the point of the knife and the aneurism needle, so as to denude only a very small part of the artery, and to leave undisturbed its surrounding connections. The vein was not seen at this or any other time. The needle was then readily passed round the artery. There was scarcely any bleeding, and none at all in the latter stage of the operation. On the ligature being tied, the pulsation in the aneurism immediately ceased. The edges of the wound were brought together by three stitches and two light compresses, and a few turns of a bandage applied. The patient was placed completely under the influence of chloroform, and on awaking up she asked for her pipe, wholly unconscious of what had taken place.

10 P. M.—Continued free from pain till 5 P. M., since which time she has complained of severe pain about the tumor and knee, and down the outside of the leg to the ankle. To have an opiate. Tumor firm and solid; no pulsation.

Sept. 21st. 7 P. M.—Pain continued through the night till 5 or 6, A. M.; from this time till 5 P. M. she was free from pain. Since 5, P. M. this afternoon, the pain has returned,

but much less severely, and is not constant. There is no pain about the wound, and at present the whole limb is perfectly free from pain or uneasiness. To have an opiate. The tumor continues firm and solid.

Sept. 24th.—Has continued well since last report. Complains of occasional darting pain on outside of leg and near tumor, but this does not prevent her sleep. Dressed the wound to-day. It seems to be united, except at the very edges. No pulsation in the tumor.

Sept. 26th.—To-day the stitches were removed; the wound is healthy, and seems healed except where the ligature issues from it. The aneurism is firm, and no pulsation; still occasional pain outside the leg, but it is rarely so bad as to interfere with her sleep.

Oct. 1st. Till now no change occurred deserving notice. This day the ligature was touched, but felt quite firmly attached. Tumor evidently diminished.

Oct. 2d. Has had a bad night, and suffers from pain in the back; complains of restlessness and the prolonged confinement to bed. Pulse 90, and rather weak. To have an opiate and a glass of wine daily.

Oct. 3d.—Little change. She requires an opiate every night and the appetite is not quite so good as a week ago. There are occasional pains in the back and limb. The wound is now skinned over, but the ligature is still firmly attached. Tumor gradually diminishing.

Oct. 4th.—Severe pain has been felt in the wound and down the leg through the night. A very slight degree of heaviness is felt near the centre of the wound upon rather deep pressure, which, however, gives great pain.

9 A. M.—About a teaspoonful of bloody matter escaped from the central stitch, which had opened through the day. Pain considerably relieved.

Oct. 7th.—Discharge continues through the stitch holes and the channel of the ligature; it is not increased in quantity, and is improved in appearance.

12th.—Discharge continues the same; little pain; ligature still firm.

14th.—Discharge diminished.

18th—To this day little change has occurred, but alarm was produced this morning by the escape of a small quantity of blood through the openings whence the matter used to come; it soon ceased on the application of cold cloths, leav-

ing only a serous but rather florid oozing, which continued through the 19th, but on the morning of the 20th the ligature was found detached, and from that time the discharge and pain rapidly ceased. She was confined to bed for three days, by which time the wound was perfectly cicatrized; and in a few days she left Wooler for Edinburgh. The aneurism was much diminished in size, having ceased to encroach on the popliteal space altogether, and the portion of the tumor which still remained on the inner part of the thigh was perfectly solid.

I submit this case to the profession, not as containing any thing new, but simply as a contribution to the statistics of popliteal aneurism treated by operation; a subject of considerable interest at present, from the recent introduction of improved methods of using compression in the cure of this disease. That well-regulated compression can, in many cases, cure aneurism, may be considered an established fact. I myself have treated one case of traumatic aneurism of the anterior tibial artery by this plan, the particulars of which are recorded in the Edinburgh Monthly Journal of Medicine for 1849; but a great deal more must be proved before we are warranted in concluding that the old operation ought to be altogether superseded, or even that compression is a mode of treatment so harmless as in all cases to admit of being tried previous to having recourse to the operation. Judging from my own very limited experience, the annoyance and pain produced by compressing instruments is very considerable, and the probable dangers of the proceeding, which have been pointed out by Mr. Syme, with all his wonted sagacity and clearness, have not (to say the least of it) been as yet proved to be imaginary, even on the showing of the advocates of compression themselves. At a meeting of the Medical and Chirurgical Society in London, reference is made by some of the speakers to "many" instances of failure, and to others in which sloughing, obstruction, and very serious engorgement had taken place. I do not know that these cases have been given in detail to the profession; and until they be, and their comparative frequency ascertained, it seems to me a little premature to decide finally on the superiority of the new practice over the old. Besides, from very obvious observations, it is in the highest degree probable that (in private practice at least) every successful instance of a new mode of treatment will be recorded, and it is equally probable that

the unsuccessful cases will not, in the first instance, at any rate, be made public. In an accredited and long established operation, there is little or no inducement to publish successful cases, which therefore remain unknown and unavailable for purposes of comparison; and this must be my apology for narrating this case, in doing which, I merely wish to arrive at a fair judgment on an important subject. I may mention, that several years ago, I operated for popliteal aneurism in another case, the patient, named Frazer, being under-gardener to the late Matthew Culley, Esq., Fowberry. In this case there was no suffering at all from the moment of the operation, which was perfectly successful. The ligature came away on the 18th day.

On the Topical Application of the Nitrate of Silver to the Larynx and Trachea in Croup.— By Edwin N. Chapman, M. D., Brooklyn, N. Y.

In the March number of this Journal for the present year, I reported five cases of croup, treated in the last and fatal stage by the topical application of a solution of lunar caustic to the larynx and trachea. Since that paper was published, five other cases, illustrating the same treatment, have been presented to my notice, the particulars of which are as follow:

Case 1.—March 18, 1854, I was called to Mr. H.'s child, Atlantic street, ten months of age, ill with the croup for 48 hours; previously to my attendance, the patient had been vomited repeatedly with ipecac. and Cox's hive syrup, without producing any salutary effect on the course of the disease, or mitigation of the laryngo-tracheal, symptoms which were gradually, but certainly assuming a more fixed and grave significance; these were, whistling respiration, labored inspiration, hoarseness, almost amounting to a suppression of the voice, cough stridulous and dry, excessive thirst, full and bounding pulse. The chest failed to betray any evidences of disease, either as tested by auscultation or percussion.

Before resorting to the nitrate of silver, I wished to give the established treatment a fair and faithful trial, having full confidence in the caustic, as long as the disease was limited to the tracheal and laryngeal mucous membrane. It matters little whether that disease consists of mucous or sub-mucous inflammation, or pseudo-membranous or diphtheritic exuda-

tion; over one and all the nitrate of silver possesses a power almost magical.

I directed one leech to the top of the sternum, the bleeding from which was to be promoted by warm fomentations, for two hours or more, unless faintness supervened. After the leeching had produced its full effects, a warm bath for half an hour, and whilst the child is in the bath, one-half tea-spoonful doses of the following mixture to be given every ten minutes till free emesis occurred: ℞—Tart. antimonii, gr. ij. syrup ipecac. ʒi.

4 P. M.—A free and copious flow of blood had followed from the leech, so much so as to make the child pallid and languid; free and powerful emesis from the emetic, attended with the prostrating effects of the antimonial was produced, but without causing the least apparent effect on the laryngeal inflammation. No mucus was discoverable in the matters vomited. Ordered for the night fifteen drops of the above mixture, or sufficient to nauseate every hour.

March 19th.—No marked change in the condition of my patient. Continue mixture and apply a blister 4—4 inches to the top of the sternum. In the evening an emetic of ipecac.

March 20th.—No alteration for the better; an entire absence of the secretion, at least, of mucus. No evidences that the chest is implicated in the disease. Continue treatment.

8 *o'clock*, P. M.—More alarming and aggravated symptoms begin to manifest themselves; constant labored inspiration, with exacerbations, threatening suffocation; purple, suffused countenance, torpor and lethargy. The medication has failed to check in the least the course of the disease, which has, notwithstanding, slowly but surely advanced to serious, if not permanent obstruction in the windpipe.

I now applied ℞ Arg. nit. ʒss, add Aq. dist. ʒi misce—to the larynx and trachea introducing the swab at least three inches below the rima glottidis.

March 21st.—During the night there was no marked amelioration of symptoms. Applied caustic as before, which resulted in free vomiting of a substance very tenacious and adhesive, albuminous in appearance, and not at all resembling the proper mucous secretion. Reapplied the caustic in the evening with a like result.

March 22d.—Improved; reapplied the caustic; mucous secretion begins to take the place of the albuminous, though

it is still glary and lymph-like. Prescribed an expectorant of senega and squills.

March 30th.—discharged—cured.

Case 2.—*May 5th*, 1854. Child of Mr. S., Amity st., 18 months of age, suffering from an attack of the croup for six days. For the last two days it had been under the careful and judicious treatment of Dr. Drake, who had employed all the usual means of combatting the disease, viz: antimony in divided doses, mercurials, warm baths, cathartics, &c., but all without avail. An antimonial emetic failed to operate, though continued until three grains had been given.

The patient presented the following symptoms: laborious inspiration, with a permanent constriction of the calibre of the larynx, and attended with a dry whistling sound, as though the mucous membrane was devoid of moisture; no violent exacerbations; voice muffled and nearly suppressed; cough dry, ringing and sonorous; pulse full and strong; skin disposed to perspiration; chest not implicated.

As Dr. Drake had tried the approved means of treatment assiduously without producing any beneficial effect, we resolved to resort to the caustic without further delay. It was employed in the same manner and of the same strength as in the last case. Emesis occurred with the discharge of a substance gelatinous and albuminous in appearance, mixed with shreds which had the semblance of false membrane in the formative stage. Ordered ℞ Hydrarg. sub. mur. gr. iss., cretæ ppt. gr. viij. m, Ft. chart. No. viij. S., one every third hour, also one-sixteenth of a grain of antimony every second hour, for the purpose of producing a nauseating effect.

May 6th.—Laryngeal symptoms slightly improved; reapplied caustic with an effect similar to the day previous; directed a cathartic and omitted the mercurial; ordered ℞ Syr. senagæ. ʒij; ipecac. ʒi, given to produce vomiting at first, afterwards in ʒss. doses every hour. May 7th, improved; continue treatment. May 9th, cured.

Case 3.—*April 26th*, 1854. Mr. McL's child, Columbia street, 16 months of age, had suffered with croupal symptoms, of a mild but insidious character, for the last seven days, which, from the onset, were gradually assuming a more dangerous character. At 8, A. M. there were the following symptoms: difficult and labored inspiration; croupal cough; profuse perspiration; loss of voice nearly complete, respiration of natural frequency, and attended with noisy ronchi through-

out both lungs; percussion clear. Directed two leeches to the throat, to be followed, after they had bled freely, by an antimonial emetic.

4 P. M.—The emetic operated freely, with a copious discharge of mucus, but without any mitigation in the symptoms. Applied the caustic the same as in the other cases, and directed a blister of 4—4 inches to the chest. Directed also an expectorant, composed of squills, senega, and carb. ammonia, with a nutritious diet.

The child died on the following day at 12 o'clock, M., with symptoms of the same character as those of the previous day, but more profound and aggravated. Inspiration was not only difficult, but short and rapid. The catarrhal inflammation seemed to affect the entire mucous membrane of the respiratory apparatus.

Case 4—*March 27th*, 1854. A child of Mr. G., Wolcott street, 20 months of age, laboring under an attack of croup, for five days, had been treated by domestic prescriptions until the day previous, when Dr. Brooks, a well-known practitioner of this city, was called to attend it. About the same time, Dr. Harris, of Williamsburgh, saw the case. They employed the usual means for combatting the disease, but without producing any change in the unfavorable features of the case. In the evening, an attempt was made to introduce caustic into the windpipe. On the morning of the fifth day, the caustic was applied a second time.

At 4, P. M., when I first saw the patient, it presented symptoms almost identical with the last case. There was a catarrhal condition, sub-inflammation of larynx, trachea, and bronchital tubes, which had attempted resolution by a profuse secretion of mucus. The child was in a half somnolent, torpid condition, aroused with considerable difficulty, and breathing not only as if there were great constriction about the larynx, but much more rapidly than natural. The trachetitic symptoms, though the mucous secretion was very free, were of the most grave and serious character. Moist rhonchi were heard all over the chest; percussion clear.

We applied caustic as in the preceding cases, directed an expectorant of senega, squills, and carb. ammonia, and as blister 4—4 inches to the chest.

March 20th.—The child died at 9 o'clock, A. M., of extensive inflammation of the bronchial mucous membrane.

Case 5.—*March*, 1854. Master W., from Massachusetts

a lad ten years of age; consulted me on account of an affection of the larynx and trachea of 18 months' duration, attended with a croupy cough, hoarseness constant; subject to exacerbations from changes of the atmosphere; tenderness in the cicro-thyroid space. I applied caustic on eight different occasions, with an interval of from four to six days. His symptoms constantly improved, and May 1st, he was discharged cured.

Remarks.—Setting aside spasmodic croup, arising from causes sympathetic, all cases assuming a fatal character naturally divide themselves into three classes: the membranous, catarrhal and diphtheritic. The last differs from the first, in frequently commencing by an exudation in the mouth or face, which, by continuity of tissue, extends into the respiratory tubes. In none of the ten cases reported by me was this diptheritic exudation perceptible, though my attention was most particularly directed to discover it if present. All were either of membranous or catarrhal character; two of them had perfectly organized false membrane and recovered; of four cases which, from the want of secretion till the caustic was used, and the appearance of the matters subsequently vomited, were judged to be of the membranous variety in the initiatory stage, three recovered and one died. Of the two catarrhal cases, which were nearly moribund at the time caustic was resorted to, both died. One chronic case, from congestion of the mucous membrane of the larynx was cured. One case, probably membranous, which recovered from the croup, died two weeks afterwards, from marasmus.

Of these ten cases (including those previously reported), seven recovered and three died.

The duration of the disease, before the caustic was resorted to, was respectively 72, 60, 36, 48, and 60 hours, and 4½, 6, 7, 5 days and 18 months. Faithful and thorough medication was employed in all excepting one, before resorting to the caustic, yet without avail. Not one of the nine acute cases, in my estimation, could, in the desperate strait to which they were reduced, have recovered by any other known method of procedure, excepting from the doubtful and unsatisfactory operation of tracheotomy, which, in hands the most skillful and experienced, yields results far from being favorable to its repetition. We can readily imagine a case in which suffocation might be imminent, from an obstruction localized in the larynx and upper portion of the trachea, where

tracheotomy holds out a solitary and perhaps the only hope for the patient. We have no time to wait for the remedial powers of caustic, which, from its very nature, requires an appreciable interval—very likely five or six hours—before its peculiar powers are displayed in subduing the inflammation or disorganizing the pseudo-membrane that may have been secreted. Unless greatly deceived, even such a case would not require the operation, were the caustic thoroughly and efficiently employed at an earlier date, whilst the obstruction is not too serious, and the powers of life are still strong. We sadly need some remedy, more general and universal in its applicability than tracheotomy, to which we may appeal with confidence, on all cases hastening on to a fatal issue, after active and efficient medication has been resorted to, without producing a favorable crisis.

Such a remedy, I confidently trust, we shall find in the nitrate of silver, when its powers have been more generally tested, and its application to the seat of the disease becomes familiarized by frequent and careful practice. I do not despair of seeing it used with as great an assurance of success as in those other kindred inflammations of the fauces, of whatever nature or kind, in which we cauterize so confidently and with such beneficial effects. Even in diptheritic pharyngitis, between which and the false membrane of tracheitis there is such a close resemblance, we confidently appeal to this remedy, almost certain that the inflammation will subside, and the exudation be detached in shreds and disorganized portions, before the almost magical power of this potent article. Its efficacy, when thus applied, can be observed by the eye.

I trust that it will be found that the mucous membrane of the larynx and trachea of a similar organization will be equally as amenable to the treatment by cauterization, as a like disease in the pharynx, whether that disease consists of inflammation, or has resulted, in addition, in a lymphatic exudation of pseudo membrane. Analogy bears me out in asserting, what my experience demonstrates to my own satisfaction, at least, that similar tissues, affected with similar diseases, require for their cure the same remedial agent, unless there are other good reasons why its powers would be less efficacious in the given case.

June 1st, 1854.

Rupture of the Uterus at the fifth month of Utero-Gestation.—By A. METZ, M. D., Rome O.

On the 14th day of June, 1854, I was requested to meet Dr. Caples of Rome, in consultation, at the residence of Mr. Rossetter, where I arrived in a few minutes after, and found Mrs. R., lying on her back upon the bed, with hurried respiration; pale, in free perspiration; the surface quite cold, and the pulse almost imperceptible. She complained of an intense pain in her left iliac region.

The following history we obtained from the patient partly, and from her husband:

Mrs. R. aged 20 years, had been married eight months, and for five months she had believed herself enciente. For several months previous to the above date she had had several attacks of pain and heaviness in her back and iliac regions, as is common to women laboring under uterine congestion, or irritation. Those symptoms, however, were not so severe as to compel her to take her bed, nor send for her physician. On the afternoons of the 12th and 13th days of June, she experienced some pain in the left iliac region, to which, however, she did not pay much attention. On the 14th, she enjoyed her usual health, and made a call on one of her neighbors, from whence she returned at 5 o'clock, P. M., and soon after she stepped into her own door, in walking across the floor, she suddenly felt an acute and "sickening" pain in her left iliac region. She sunk into a chair, perfectly helpless, where she was found a few minutes afterwards by a neighboring lady, and placed in bed, and in a few minutes afterwards Dr. Caples saw her and in less than a half hour after the attack, I found her in the above condition.

Before my arrival Dr. Caples had given her a dose of morphine and placed a sinapism over the painful region.

By the vaginal examination the os uteri was found not any dilated, and the neck in a condition common to that stage of pregnancy. On feeling through the walls of the abdomen, nothing abnormal could be detected, but the pressure caused great pain and faintness.

The *emergent* occasion called for a speedy diagnostic conclusion,—and that conclusion was, that she had been laboring under extra-uterine pregnancy, and that the ovum had become detached, and the shock on the system from such detachment, with the consequent hemorrhage, was speedily causing her death. *Gastrotomy* was deemed out of question, as the patient was not in a condition to live through the operation.

To support her as long as possible, morphine, brandy and ether, were administered. In an hour she said: "The pain is much better, but I feel *so* sick!" She continued to sink; the breathing became more hurried, and the pulse made its last flickering effort about four hours after the commencement of the attack.

Post Mortem—Twelve hours after death, an incission was made through the *linea alba*, and as soon as the peritoneum was divided, a considerable quantity of blood escaped. The first object that presented itself was the bag of membranes *not enveloped* by the uterus, and containing rather a large quantity of amniotic fluid, and the fœtus. I could not find the uterus until after I had ruptured the membranes and removed the fluid and fœtus, when by making traction on the cord, it was brought up into view, about one-fourth the size of the bag of membranes, and somewhat firmly contracted on the *placenta* which it contained. There was a rupture extending from the fundus to the left Fallopian tube, through which the fœtus with its enveloping membranes, had passed.

The uterus was considerably atrophied, and any part of it could be torn with facility, between the fingers. The peritoneal covering of the uterus waos not involved in the softening process, and possessed more tenacity than the uterus itself. All other parts within the pelvis appeared healthy.

Mrs. R. ever had been of a chlorotic appearance, and somewhat emaciated. Her parents both are of feeble coustitution, and she was true to nature in copying after them.

It is my opinion that the remollisement was caused by general enervation and anemia; or, in other words, the supply of nervous stimulus and of healthy blood was insufficient to supply the extra demands of the uterus during gestation,—thus starving the uterus until its healthy structure gave way. It would have been interesting to examine the arteries leading to the uterus, and also the condition of the heart and other organs, but this the circumstances did not permit.

Supra Pubic Puncture of the Bladder for Retention of Urine. By J. Alexander Waddell, M. D., Staunton.

G——e G——n, whose case is the subject of this communication, is one of our oldest citizens—above 70 years of age, and a man of regular habits and good constitution.

For the last five or six years he had experienced inconvenience, at times, from disury, but had never suffered from entire retention until the day previous to my first visit, which was on the 10th of May, 1853. I found him then in an agony, with his bladder greatly distended and a slight dribbling of urine at the mouth of the urethra. In the full confidence of affording relief, recourse was immediately had to the catheter. To my surprise, upon examination of the parts, the scrotum was enormously enlarged, and the penis contracted and drawn under the pubis. This scrotal enlargement the patient ascribed to the existence of hernia, a slight examination of which satisfied me was without foundation, as the ring of the abdomen was unobstructed. But as the distended bladder was the most pressing symptom, an attempt was made to introduce the catheter. The patient was very sensitive and complained much at our endeavors to surmount a stricture an inch and a half beyond the glands. This being overcome by gentle and continued pressure, another was encountered, anterior to the membranous part of the urethra. Having in like manner passed this barrier, on arriving at the neck of the bladder, I was entirely foiled in every attempt with the various catheters in my possession to penetrate the bladder. He was now bled from the arm, and directed to use the warm hip bath and the tincture opii. freely, both by the mouth and injection.

On visiting him the next day, I was accompanied by my father, Dr. Addison Waddell, who united with me in persuading the patient to permit another effort with the catheter. Catheters and bougies of various sizes and kinds were resorted to without success, and no advantage gained by directing the point of the instrument by the finger in ano.

The patient continued nearly in the same situation for six or seven days, obstinately resisting all persuasions for further attempt with the catheter, or a puncture of the bladder—thinking that his sufferiugs were much mitigated by opium, and there was a constant dribbling of urine, time would effect a cure.

On the eighth day, from our first visit, under a conviction that he would only live a few days longer in this situation, we insisted strenuously upon an operation as the only means of relief, assuring him it would not shorten his life, and was his only chance of escape from impending death.

He finally gave his consent, and the question arose, which of the two operations we should perform—that above the pubis or through the rectum. Having ascertained, by a previous examination that the bladder could be reached beyond the prostate, and as this part, for obvious reasons, has been so generally preferred in the absence of disease of this gland, we immediately proceeded to the operation through the rectum.

The patient was placed in the usual position, and the index finger was carried up the rectum, which occasioned considerable pain, as he was suffering from piles. Having reached the bladder at a suitable distance, the curved canula and trocar were passed upon it to the cystic tumor, and was thrust into it, as we supposed, with a force quite sufficient to penetrate it, but was surprised at the absence of any sensation of entering a cavity. When the stilet was withdrawn, a few drops of blood only flowed from the canula. It was then removed. We thus had the mortification to find our efforts a failure.

And here let me remark. that after the most mature consideration of all the circumstances, we feel at a loss to account for the want of success. I am persuaded it could not have been from the want of an adequate force applied to the instrument. Could it be ascribed to the congested state of the rectum, and the thickness of some intervening substance?

Affording no relief by the rectum, we immediately resorted to the supra pubic operation, which was performed in the usual manner, making our puncture very little more than an inch above the pubis. A gush of urine followed the removal of the trocar, to the great relief and evident delight of the patient.

After drawing off more than two quarts of water, we stop the mouth of the canula, bringing the wound together by adhesive plaster, and applied a bandage so as to support the abdomen and confine the instrument. Large anodynes were administered, and quietude, &c. were enjoined.

The next morning we found him in a very comfortable situation, and without a bad symptom, after a good night's repose. A large quantity of water was again drawn off, and the same treatment in other respects was observed as before. Several days passed away, varied only by occasional laxative injections, which had the desired effect; and to our high satisfaction, the evils of inflammation and infiltration so fearfully depicted by some writers, had not supervened.

The catheter was now tried again, with the view of closing the abdominal aperture, but the same insurmountable obstacles existed as before. As there was no reason to hope now for relief by the natural channel, and having retained the canula until consolidation of the parts had taken place, we had a much shorter silver tube, with shoulders, so constructed as to pass through the opening, and adapt itself to the parts concerned. The incision healed kindly, leaving only a circular opening through which the tube was inserted. The patient, by means of a stopper, could evacuate or retain his urine at pleasure.

His situation did not forbid a moderate degree of exercise; and the fourth week after the operation he was seen frequently on the street.

Seven weeks from the time I first saw him, he sent for me, and on my arrival informed me that he had passed a few drops of clear urine through the urethra. It then prevailed upon him to allow another trial with the catheter, and after much difficulty succeeded in passing into the bladder a very slender silver catheter.

Having been struck on this and former occasions with the tortuosity of the urethra, I could not but think that the scrotal tumor had the effect of distorting the canal, and adding at least to the difficulties heretofore experienced.

This view being entertained also by my father, with the view of gaining some information of its character, and of adopting some means for its reduction, we made an incision of exploration into the scrotum, which was of a pyrimidal form and somewhat œdematous. The incision was extended several inches, and quite through to the tunica vaginalis. Between the skin and that membrane there was a dense fibrous tissue at least an inch thick, from which exuded a serous fluid. On opening the tunica vaginalis, about two ounces of a more limpid fluid were discharged. The testicles were free from disease.

The edges of the wound were then drawn together by adhesive straps. The wound continued to discharge for some time, with an evident diminution of the tumor. But even now, the latter is of such a size as to require a suspensory bandage.

The urethra became more and more pervious to the urine; and in a few months he could pass his urine freely from it. A favorite expression of his at this time, when meeting a

friend, was, that he could "now p— as pretty as any man."

Feeling fearful lest an obstruction should again visit the parts, the old man has, up to this time, refused to have the artificial opening closed, and esteems himself fortunate in having two channels for evacuating his water.

What is a little singular, there is no involuntary dribbling from either orifice, and his health and activity are unimpaired.

Ergot: Circumstances which contra indicate its Use during Labor. By M. Paul Dubois, M. D.

Ergot, besides its well known hemostatic properties, s useful when, from inertia, the uterine contractions are insufficient to complete delivery. It is, however, to be regretted that this valuable remedy is so often improperly used. We have frequently known it given when it was entirely unavailing, because unsuited to the case. This abuse, and the sad effects consequent upon it, have contributed very much to discredit ergot in the minds of many practitioners. We should, nevertheless, not be deprived of so precious an agent from the mere fact that it has been injudiciously administered. We should rather endeavor to ascertain the circumstances under which it may be advantageously prescribed, and distinguish these from the contra indications to its use. The circumstances under which the uhe uterine contractions may be impaired without calling for the use of ergot are sufficiently numerous to merit attention. The following are some of the most common:

1st. Debility dependent upon a natural state, or induced by previous disease. This requires tonics, broth, wine, &c. for the purpose of improving the strength of the patient during labor.

2d. Extreme distention of the uterus from an excessive quantity of liquor amnii, which induces complete paralysis. The uterine fibres being inordinately distended, the membranes should be punctured whenever the os tincæ is one-fourth dilated, or about the size of a half dollar.

3d. Congestion of the face, attended with impaired contractions from plethora. The patient should then be bled.

4th Mental disturbance, from whatever cause, sometimes from the presence of particular persons in the chamber, may

suspend the uterine contractions. The woman must be quieted and the causes of annoyance removed

5th. Great elevation of temperature in the apartment may lessen the contractions by the cerebral congestion it induces. The room should, in such cases, he well ventilated and cooled if possible.

6th. Pain other than that of labor. Retention of urine may be so painful as to impair the contractions; catheterism should then be practiced. Very great pain in the loins may likewise affect them, in which case we should apply the forceps if labor is sufficiently advanced; if not, wait patiently. The same may be said with regard to the headache which sometimes attends each abdominal contraction.

7th. The premature discharge of the waters makes labor slow, because, like all hollow organs, the uterus contracts most forcibly upon unyielding contents, and that when the membranes are ruptured the descent of the fetus at each contraction lessens its force.

8th. The uterine contractility may become exhausted by the tardy rupture of the membranes in consequence of the firmness of these; rupture them. Rigidity of the os tincæ from phlogosis may do the same; resort to belladonna or to general bleeding. If the cause be unyielding induration of the tissues of the cervix uteri, of which we have recently seen a case, the knife should relieve the resistance.

9th. There may be posterior obliquity of the cervix, which will lessen the force of the contractions. If the os does not dilate of itself (and cannot be rectified by the finger—Ed.) we may have to divide its anterior lip with a probe pointed bistoury,—*Southern Med. and Surg. Journal.*

Galium Aparine in certain forms of Cutaneous Scrofulous, and Cancerous Diseases.

When Dr. Winn first drew the attention of his professional friends to the properties of this plant, two years since, he was only aware of its efficacy in treating lepra; since then he has ascertained its benefit in other skin diseases. Dr. Winn then related the circumstances which led to his acquaintance with the galium aparine. A friend of his, in Truro, who

had suffered for many years from lepra vulgaris, and had taken all the usual remedies in vain, informed him, that he possessed at last a remedy for his troublesome complaint, in a common wild plant, of which he did not know the name. Dr. Winn found this plant to be galium aparine, which grows abundantly in England; and, on further inquiries, learned, that three other persons in that district had been cured by the same remedy, one of whom had been discharged from St. George's Hospital, as an incurable patient. After a botanical sketch of the plant, Dr. Winn expressed his belief that the ancients were acquainted with this plant, and that it is identical with the aparine of Dioscorides. On referring to some very old authorities, he ascertained, that the galium was much in vogue as a domestic remedy in this country many centuries since; it was then highly extolled as a cure for cancer, scrofula, leprosy, and dropsy. An Italian writer, Giuseppe Ferramosia, had published in *Schmidt's Jahrbucher*, an account of several cases of scrofula, in which the galium appeared to produce rapid absorption of enlarged scrofulous glands. Diebach had also recommended it for phthisis, ascites, and scrofula. Richter considered it beneficial in strumous affections. Dr. Winn wished to direct attention to the fact of galium having been efficacious in glandular affections as well as lepra; it tended to confirm the theory, that the two diseases were owing to the same cause, a strumous diathesis. It was also a remarkable circumstance, and one not generally well known, that arsenic is highly beneficial in glandular swellings. Mr. H. Rees, an experienced and successful practitioner in the diseases of children, informed Dr. Winn that he had tried arsenic in infantile glandular affections, and proved it to be a most efficacious remedy. When first Dr. Winn tried the galium it was in the form of a decoction. But finding this mode inconvenient, her equested Mr. Hooper, of Pall Mall, to prepare an inspissated juice, and that able operative chemist had succeeded in making a very valuable preparation. A teaspoonful of the juice equals in strength a half pint of the decoction. In ordinary cases, a drachm taken three times daily will be found sufficient, but in obstinate affections the dose must be doubled. The juice of the galium had been analysed by Ferremosia and Robert Schwartz. The former gives, as its constituents, acetate of potass, gallic acid, tannin, extractive, water. The analysis of Schwartz is somewhat different. He gives its component

parts thus: Galitannic acid, citric acid, rubichloric acid, chlorophylle, starch. with regard to the *modus operandi* of the galium, Dr. Winn said he had little to offer, but was merely conjectural. Many of his patients were conscious of an increased flow of urine during its use, possibly from its acting on the kidneys as a depurating agent. The class of cutaneous diseases which had been benefitted under his own observation, was chiefly that dependent on a state of dyscrasia, such as lepra and psoriasis. He also considered these diseases as often arising from a strumous diathesis. The gentleman, suffering from lepra, whose case had been referred to at the commencement of the paper, was one of a very consumptive family. In him the family disease had manifested itself under another form. It is highly important that the fluid extract be perseveringly used. Many patients have failed, no doubt, from not having given the remedy a sufficient trial; the same may be said of arsenic. Dr. Winn had tried the galium in nineteen cases of skin diseases. Of these, five were cases of lepra; six of psoriasis; four of eczema; two of lichen; one of inflamed acne; and one of ordinary copper-colored syphilitic eruption. In nine of these cases, the benefit derived from this medicine was very striking. In one, an instance of lichen circumscriptus, the effect produced by substituting the galium for other remedies, was almost marvellous. With regard to the efficacy of this plan in treatment of cancer, Dr. Winn was solely indebted to the experience of Mr. Bulley, of the Bucks Hospital, who had forwarded to him an account of two cases of cancer in which the galium appeared to exercise a remarkable influence in arresting the disease.

Chloroform. Letter from James Harrison, Dentist, Jamestown.

Enclosed I send you my method of counteracting unfavorable impressions made by chloroform, or the means I use when a person is sinking under the effect of chloroform. I have read a case in the American Journal of Dental Science, page 272, vol. 4. The brain, the centre of the nervous system, should be immediately aroused to action, and the valves of the heart put in motion again. The remedy is this: sicken or nauseate the stomach, mechanically, as follows: take a light whole goose quill, run the feather down the throat of

your patient to the larynx, give the quill a rotary motion, or if there is not anything more convenient, take your finger, run it down the throat, move it round and round the side of the throat, touching or exciting the larynx, and mostly the epiglottis. The quill would be preferable if the jaws are locked; if so, run the feather end of the quill between the teeth or back of them, reaction will immediately take place.

I would as soon think of restoring a person sinking under the effects of chloroform by tickling the sole of the foot as to depend on artificial respiration alone. I am confident that this remedy will be of great use to suffering humanity. May it be fairly tested and endorsed by all who find it to be of use.

N. B. I never let the pulse run below 45 to the minute—consider the patient safe, pulse at 50.

[An operation like this was recommended by Ricord, who believed death to take place in consequence of a closure of the glottis. He thrust his hand down the throat and lifted the epiglottis, which he always found pressed down upon the upper opening of the larynx. This treatment was highly approved and very generally adopted after its first introduction.—*Eds. Jour. Dental Science.*]

Rebiews and Notices.

An Examination of the Practice of Blood-letting in Mental Disorders. By Pliny Earle, M. D., Author of "A Visit to thirteen Asylums for the Insane in Europe;" "History, Description, and Statistics of the Bloomingdale Asylum for the Insane;" and "Institutions for the Insane in Prussia, Austria, and Germany." New York: Published by Samuel S. & William Wood, No. 261 Pearl street. 1854.

Institutions for the Insane, in Prussia, Austria, and Germany. By Pliny Earle, M. D., one of the Visiting Physician to the Lunatic Asylum of the City of New York; Late Physician to the Bloomingdale Asylum; Fellow of the College of Physicians and Surgeons of New York, and of the New York Academy of Medicine. "But they shall obtain joy and gladness, and sorrow and sighing shall flee away."—*Isaiah.* New York: Samuel S. & William Wood, No. 261 Pearl street. 1854.

We have received from the publishers two small volumes, bearing the above titles.

Dr. Earle has been for about fifteen years ardently investigating the subject of Insanity, and has gained for himself an enviable reputation by his extensive researches.

We believe that he began his treatment of the insane in "The Friends' Lunatic Asylum at Frankford," spending some years in connection with that excellent institution. From there he went to New York, and in two extensive Insane establishments in that State, the field of observation was much enlarged, and his reputation as a writer, and most successful ... of the Insane, was fully established.

To the general practitioner these works present much valuable and interesting matter, but to those having Insane establishments under their charge, they are indispensable.

The "Institutions for the Insane in Prussia, Austria, and Germany" is made up of notes and observations on the institutions of those countries, taken on the ground from personal inspection, and these sketches are peculiarly valuable in contrasting the condition of the insane in the old world with the condition of those in our own country.

In his work on bloodletting, in mental disorders, Dr. Earle has thoroughly discussed the subject, drawing a copious stream of facts from numerous authorities on both sides of the question.

The Book is commenced with this proposition: "To *Bleed*, or not to *Bleed:* that's the question." It ends with the following reply:

A reply to the proposition at the commencement may now be attempted. It is evident, however, from the very nature of the case, that no positive, definite answer, couched in terms as fixed as the figures representing numbers, can be given. It must be merely approximative. I shall endeavor to convey it in a series of facts, truths, or inferences, which I hope are fairly deduced from the substance of the foregoing pages.

1. Insanity, in any form, is not in itself an indication of bloodletting.

2. On the contrary, its existence is, of itself, a contra-indication. Hence, the person who is insane should, other things being equal, be bled less than one who is not insane.

3. The *usual* condition of the brain, in mania, is not that of active inflammation, but of a species of excitement, irritability, or irritation, perhaps more frequently resulting from, or accompanied by anæmia, debility, or abnormal preponderance of the nervous over the circulatory functions, than in connection with the plethora and enduring vital power.

4. The excitement, both mental and physical, produced by this irritation, can, in most cases, be permanently subdued, and its radical source removed by other means, more readily than by bleeding.

5. Yet insanity may be co-existent with conditions—such as positive plethora, a tendency to apoplexy or paralysis, and sometimes sthenic congestion or inflammation, which call for the abstraction of blood. Therefore,

6. Venesection in mental disorders should not be absolutely abandoned, although the cases requiring it are very rare.

7. As a general rule, *topical* is preferable to *general* bleeding.

8. In many cases where the indication for direct depletion is not urgent, but where bloodletting, particularly if local, might be practiced without injury, it is safer and better to treat by other means, equalizing the circulation and promoting the secretions and excretions.

9. The physical conditions requiring bloodletting more frequently exist in mania than in any other of the ordinary forms of mental alienation.

10. Insanity following parturition, other things being equal, is to be treated by bleeding less frequently than that which has its origin in other causes.

11. If the mental disorder be the direct result of injury to the head, the treatment must be directed to the wound, or its physical effects, not especially to the psychic condition.

12. In many cases where insanity is accompanied by typhous symptoms, and in some where the aspect is that of acute phrenitis, active stimulants alone can save the patient, and direct depletion from the circulation is almost certainly fatal.

Healthy Skin: A Popular Treatise on the Skin and Hair, their Preservation and Management. By ERASMUS WILSON, F. R. S., Author of a "Treatise on Diseases of the Skin;" A System of Human Anatomy, etc., etc. Second American, from the Fourth and revised London Edition. Philadelphia: Blanchard & Lea. 1854.

This is an excellent little treatise, from an author whose name is well known to the profession. The diseases of the skin and hair, particularly the last, have been so little studied by us, that in perusing this volume, we found ourselves in a new and interesting field of original investigation, and we venture the assertion, that a large majority of the profession at large, are alike unskillful in treating the diseases of the hair. The treatment of an appendage, so ornamental and useful to the "human form divine," has been too long confined to the caprice of unskillful barbers, or to the follies of unscrupulous nostrum venders, and we are now happy to find that the eye of science, aided by the searching views of the microscope, has been directed to the subject.

For sale by Moore, Wilstach & Keys.

The Principles of Animal and Vegetable Physiology: A Popular Treatise on the Functions and Phenomena of Organic Life; to which is prefixed a General View of the Great Departments of Human Knowledge. By J. STEVENSON BUSHMAN, M. D., Physician to the Metropolitan Free Hospital, etc., etc. With one hundred and two Illustrations on Wood. Philadelphia: Blanchard & Lea. 1854.

This is a volume of 284 pages, into which is condensed a wide expanse of useful and interesting scientific information, adapted in the arrangement of its subjects to the capacity of youthful and general readers, as well as the student, in the pursuit of professional acquirements. The rudiments of most of the collateral sciences, from which the physiologist borrows his illustrations, and a knowledge of which is essential to a clear understanding of the subject, are presented in the early chapters of the book, in a condensed form, so as to be easily comprehended, thus conducting the reader, by regular

grades, up to an understanding of the phenomena of organized existences.

For sale by W. H. Derby.

Editorial.

HOMEOPATHIC DISHONESTY.

It is well known that homeopathists are too shrewd to trust their little-or-nothing pills when they encounter a formidable disease, and that they have dishonesty enough to use remedies in the common doses, under cover of their own system. A case in point recently came to our knowledge, which is too note-worthy to be lost.

A somewhat noted doctor of the homeopathic faith, of this city, was called to a gentlemen in the vicinity, who was suffering from an attack of intermittent fever. The patient had imbibed a wonderful fancy for the homeopathic system, had great faith in its superiority over the regular practice, and would on no account have taken medicines from the hands of an "allopath." While undergoing the *homeopathic* treatment, the patient was visited by a friend, a gentleman of discrimination and judgment, who at once discovered the nature of the disease, and made the following remark to the patient.

"Sir, you have intermittent fever, and I can tell you what will effect a cure."

"What is that," inquired the patient.

"Calomel or blue pill, followed by quinine," was the answer.

"Ah," said the patient triumphantly, "*that is just what I am taking.*"

And sure enough it was so. An examination of the medicine showed that the infinitesimal doctor was dosing his patient with *heroic* potions of blue pill and quinine.

Such dishonesty is doubtless quite common. We do not believe there is a homeopathist in the United States who would trust a case of intermittent fever to the effects of *infinitesimal* doses of quinine, and such a fact gives the lie direct to their whole system, morally and philosophically.

ARABIAN MEDICINE.

Once the most enlightened, has fallen into extreme ignorance and superstition. They believe largely in *preventing* disease, and for that purpose resort to various means, some tangible while others are based on the merest superstition. It is a prevailing custom to cup the head, with the view of preventing disease in general Several times during the year the head is shaved, cupped and scarified, as a mere *preventive*, when no disease exists. Many resort to *charms* as a means of both prevention and cure. No persons devote themselves exclusively to the practice of medicine in Arabia, but that exalted function is performed by barbers; and no fee is charged unless the patient recovers.

INSANITY PRODUCED BY CAMPHOR.

A Toronto paper states that eight persons have been admitted into the lunatic Asylum whose insanity resulted from the use of Camphor as a Cholera preventive! Camphor has been extensively used for this purpose, and we have no doubt its effects have proved highly pernicious in many cases. Its preventive qualities are entirely imaginary.

Our bills were forwarded to the subscribers of the Lancet in June, and while we are thankful to those who promptly responded to our call for aid, we are sorry to say that we have remaining quite a large delinquent list. The advanced price of paper, and the increased rates of composition, and every thing relating to the publishing department, compel us to urge our friends to send on their dues.

We have received the second volume of Dr. Drake's great work on the Diseases of the Mississippi Valley. It fully sustains the high reputation that the first volume gave its distinguished author, and is an invaluable addition to the medical literature of the West. In our next number we will give a more extended notice.

For sale by Applegate & Co.

The city of Cincinnati has been visited by an epidemic of biles, carbuncles, and felons, which is now about disappearing. Very

few persons escaped during the month of September, without some of these troublesome visitors, and many suffered severe constitutional disturbance as well as much local pain, but we have not heard of any cases proving fatal.

Miscellany.

OHIO COLLEGE OF DENTAL SURGERY.

This Institution, so much needed in the West, has now been in existence ten years. It has been gradually developing itself and so demonstrating its usefulness, that its necessities required a more extended provision in the way of Lecture rooms, Operating rooms, Museum, Library, &c., &c. It is truly gratifying to see how nobly the Profession have come forward and supplied this want. Casting off all hope of public aid, they determined to aid themselves, and during this summer they have erected a very neat and substantial four story brick edifice on College street. This is well and centrally located, and the entire arrangement of the building appears to be just such as the Profession need. They have first, three very neat and well-arranged Dissecting rooms; next below these, in the third story, is an Anatomical and Chemical Lecture room; below this, in the second story, is the public Lecture room. This is arranged with circular seats, and will be seated with arm-chairs, and will accommodate one hundred and fifty students; below this, on the first floor, is a large and commodious Laboratory. The front of the building is arranged into—first, four Infirmary rooms, where the poor of our city have their teeth attended free of any charge. This gives practice to the students, and is attended to under the supervision of the Professors of Operative and Mechanical Dentistry; these four rooms occupy the two first floors. The third story is appropriated to Faculty and Library rooms; and in the fourth story there is a large room with reference to a museum, which it is expected to fill with specimens of diseased teeth, Mechanical Dentistry, &c., &c. The College is owned by a stock association, and the stockholders embrace many of the most prominent of the Profession, in Ohio and Kentucky, Indiana, Illinois, Missouri, Mississippi, Louisiana,

and Western Pennsylvania. The stock is $100 per share, and the object is to distribute it among as many of the Profession as possible. The lot and building belonging to this association is now worth from $10,000 to $12,000, and is truly an honorable monument to the self-sacrifice and professional pride of those engaged in this effort to advance Dental science. That the Medical Profession may know and appreciate the movement aright, we would state that the course of study is very full and complete, embracing, besides that which is strictly practical in the Profession itself, a thorough course in Anatomy and Physiology, Pathology, and Therapeutics, and Chemistry. These branches are taught by able men in the Medical Profesiion. The three chairs of Dentistry are divided as follows: First, Principles and Practice of Dental Surgery; second, Operative Dentistry; and third, Mechanical Dentistry. The Professors of each department are first selected by the stockholders, each share entitling to a vote, and then these nominations are confirmed by the Board of Trustees which were appointed by the Legislature under the act of incorporation.

We feel assured that if the Medical Profession were to fully appreciate the importance of a thorough Medico-Dental education, they could do much to sustain such institutions. There are now two in the East, Baltimore and Philadelphia, and this in our city. We are told that Cincinnati can lay claim to the first building of the kind ever erected for this special purpose.

Dental Surgery, although a speciality of our noble Profession is fast assuming a distinct character of its own. It numbers now many scientific and indefatigable members who appear determined to keep pace with the progressive spirit of the age, and gain for Dental science that consideration it deserves.

Suture of Tendons.

In April last, M. Chessaignac presented to the Surgical Society of Paris a young girl, who five months previously had received, by falling upon a piece of glass, a transverse wound at the anterior and inferior part of the fore-arm. This having suppurated some time, healed up; an inability to flex the thumb and indicator followed, and the patient was taken to St. Antoine Hospital. It was evident that the inferior end of

the tendon adhered firmly to the cicatrix. It was necessary to replace the superior end of the tendon in opposition with the inferior; to effect this the following operation was performed:

The injured tendons were exposed by dissecting up a rectangular flap, the lower margin of the wound corresponding to the cicatrix. The tendons were intact; and the median nerves occupied their proper position. The superior extremity of the cut tendons not being in view, the dissection was carried a little higher up, when the abrupt and bulky end of a tendon was seen. This extremity was drawn in contact with the lower one, and they were kept in position by a suture, the ends of which were brought out of the wound. The flap of integument was replaced by sutures and dressings, and the hand and fore-arm were kept in a forcibly flexed position. At the end of six days union was almost complete, and the patient began to flex the indicator. In less than fifteen days the patient was discharged, having recovered the ability to flex the thumb and forefinger.—*Gazette des Hopitaux.*

Vegetarians in Convention.

The members of the national society known as the "*vegetarians*" assembled in convention at Philadelphia last week, it being their fifth annual meeting. In consequence of the absence of Dr. Alcott, the president, Dr. Mussey was called upon to preside, which he did in a most acceptable manner. A preamble and resolution were reported by the business committee, which set forth that there exists among us a vast amount of sickness, the result of the consumption of the flesh of animals, intoxicating liquor and tobacco; and vending, by authorized and unauthorized physicians, of drugs, patent medicines and other deleterious articles of medicines. They therefore declare that it is the duty of every individual to inquire for himself into the nature of his constitution, and as to such habits with regard to food as are required by the laws of nature and health; and that parents, especially, should understand what food is best adapted to a sound and vigorous constitution. After the business of the convention was completed, a banquet was furnished, consisting of the following courses and dishes:—

"First course.—Vegetable soup, savory omelet, fried egg plant, baked potatoes and mashed do., baked sweet do., Lima beans, green corn, tomatoes, parsley sauce, pickled lemons,

pickled beets, pickled martinas, Graham bread, white bread, and iced water.

"Second course.—Peach pies, cocoanut custard, cheese cake, moulded prepared corn, moulded farina, moulded rice, water melons, cantelopes, peaches, apples, cream, fruits.

"On the platform was seated Professor Wright, of Camdon, N. J., aged 55 years, and a vegetarian for 35 years; Mr. Carlton, aged 83, vegetarian for 40 years; Dr. Mussey, 74 years, vegetarian for 21 years; and Rev. Mr. Metcalf, 65 years, and a vegetarian for 45 years."

Homœopathy High Dilutions—"Provings of Hydrophobin."

In the August number of the Philadelphia Journal of Homœopathy, may be found an editorial article recommending a Dr. Lentz and his high dilutions. "Dr. Lentz," say the editors, "is frank in making known the mode of carrying up his dilutions. They are prepared centesimally, that is, on the Hahnemannian plan. *Every dilution is prepared separately*, and RECEIVES A HUNDRED DISTINCT SHAKES, so that if a medicine is labelled 500 or 5000, we feel confident it is *correct*—that is, the medicine has been diluted 500 or 5000 times." In the same Journal we find a very labored article on the "provings of hydrophobin," by John Redman Coxe, Jr., M. D.; and on account of the multiplicity of the symptoms this new and most remarkable therapeutical agent produced in him and the little Coxes, we are disposed to give a synopsis of them. It took just sixty pellets of the third dilution of this hydrophobin, for four successive days, to produce the following symptoms in Dr. Coxe, who is 54 years of age, and of a nervo-sanguineous temperament.

"*Mind.*—Feeling as if something annoying was about to happen, goes off when thinking about it. Morose and crabbed feelings until the fourth day. Felt very cross, and did not want to converse, or see any one. Very cross; so much so that my children expressed great surprise; scolded my wife and children; felt wretched. Offended at everything, disposed to get mad. Thought came into my mind to attack others in a mean way—biting, snapping, with convulsions; irritable, with headache. Caught myself saying to nephew, in a severe tone, "if you do that again," when he was not really in fault. Impatient all day, with the headache. Undecided with little things. Pain in the heart. Felt unusually serious, bitterly crying, with headache. Had a good cry before going to bed;

felt very sad; sighing, with opression in breathing. Sang more than usual; did not feel at all merry, singing involuntary. Exhilarated, felt as if had received joyful intelligence all day. Happy disposition after perspiring in the evening. Excited, cannot sleep. Exaltation; thinks he was something of importance. Admires his own skill in talking Latin fluently in a dream. Subordination, like a servant in a dream. Dullness and stupidity at night. *Dizziness.*—Slight dizziness and nausea. Feels as if a leaden ball was rolling about in the brain. He losses consciousness for a moment. Dulness in occiput and forehead. Severe heavy pains in forehead, lasting five hours. Sharp pricking pain in left temple, attended with throbbing and pinching."

And thus this martyr to medical science continues to describe symptoms in all their minutiæ, as they affected the various organs and tissues, occupying nearly thirteen pages of the Journal in the description. The fact is, he has made out a case of hydrophobia, and is presumed that the homœopathic remedy for the poisonous effects of bites from rabid animals, will henceforth be, to have the suffering patient again bitten by the same or some other rabid animal. If any of our readers have any doubts as to the efficacy of homœopathic remedies, or the *science* which is displayed by the practitioners of that absurd doctrine, we commend to them a careful perusal of the two articles in the Journal alluded to.

Fever—Intermittent.—Dr. Schreiter recommeud (*Presse Medicale Belge*) as a sucedaneum to quinine, a solution of phosphorus in oil of turpentine. Two grains of the metalloid dissolved in three ounces of turpentine, furhishes, according to this author, an efficient medicament, which should be administered in doses of fifteen drops, every three hours, in barley water.

Hydrocele.—Dr. Bellucci (*Il Filiatro Sebezio*, May, 1854) asserts that many cases of hydrocele may be radically cured by the use of an ointment composed of one or two drachms of powdered digitalis and an ounce of lard. The treatment usually lasts from one to three months. The five cases reported by Dr. Bellucci iu support of this treatment, corroborate the researches of Dr. Raymond Falot,* in regard to the absorption of diaglalis, when applied to a cutaneous surface.

Salivation as a Diagnostic Sign distinguishing Vaiola from Varioloid in the early stage.

M. Trousseau stated in a recent clinical lecture, that salivation is a constant symptom during the early period of the disease in variola, and the abstance of this symptom in varioloid is invariable. Hence, according to him, the differential diagnosis may be made out by this symptom, before the disease has advanced sufficently far to determine the variety of the disease by the symptons. If this be reliable, it is the more valuable because the symptoms of the early stage in varioloid are often quite as violent as in grave cases of variola. To determine whether a patient is to pass through varioloid or variola is of coursse, a point of not a little consequence with reference to the prognosis.

Eczema.—Prof. Hebra, of Vienna,(*Zeitschrift der k. k. Gesellschaft der Aerzre*)uses cold epithems as a remedy in mild cases of eczema. The application, if coutinued to long, will produce artificial eczema. In more chronic cases Hebra recommends the ung. iod. sulphur. *R. Sulph. iod.* ℈j.; *ung. simplex*, ʒiij., M. The ointment is rubbed on the part affected, twice daily, the cold fomentations still continuing.

In very obstinate cases, Hebra immersed his patients for eight hours daily in a tepid bath. This was persisted in for fifteen weeks, and they were even compelled to take their meals in the bath. The experiment was successful in two cases.—*Edinburgh Monthly Journal.*

Relations of Fat and Sugar.

Dr. Gibb read a paper before the physiological section of the Medical Society of London, on the subject of the relation of the fat in the liver to its sugar.

He found that, in birds, those which had the most fat, had also the most sugar in the liver. Among the mammilia, those which posses but little fat in this organ had also little sugar there, while those, which, like seals, had the liver gorged with fat, also contained large quantities of sugar in the same organ.

Brandy and Red Noses.

Douglas Jerrold, in some remarks on English and Swedish brandy-drinking, gravely asks the question, whether the red noses of the English dram-drinkers are not due to the various

adulterations introduced into the liquors of the British dealers?

This reminds us of the verdict of a coroner's jury among the Mohawks, some years ago. An Indian had gone into Albany, one cold winter's day, and got very drunk. On his way home he became completely overcome, laid down and was frozen to death. His tribe at that time was much disposed to immitate the habits of the white men, and accordingly held an inquest over the dead body. After a long powwow, they finally agreed upon the verdict, that the deceased had come to his death "by mixing too much *water* in his whiskey, which had frozen him and killed him."—*Amer. Jour. Dent. Science.*

OBITUARY.

Died at his residence in Moscow, Clermont county, Ohio, JOHN H. MOORE, M. D., of Cholera, on the morning of the 7th of August. The deceased was a graduate of Starling Medical College, and one who was never known to shrink from the duties, dangers, and responsibilities of his chosen profession. He had been, for some days previous to his decease, in almost constant attendance on cholera cases, himself unwell at the time with derangement of the bowels, and when entreated by friends not to risk his own life, his reply was characteristic of the man: "My services are needed—my promises given, and when I die I wish to die at my post". He died the death of the Christian, resigned to the will of his God, and deeply lamented as a relative, friend, and physician, by the community in which he dwelt. He has passed from among us, but we thank God for the assurance that "this our brother, is not dead, but sleepeth—he shall rise again." A. C. M.

☞ At a very large meeting of the medical profession, held at the residence of Dr. Fore, September 29, 1851, Dr. Taliaferro was called to the Chair, and Dr. J. P. Walker chosen Secretary.

Dr. Woodward announced, with some appropriate remarks, the death of P. S. Conner, M. D., when the following preamble and resolutions were unanimously adopted:

WHEREAS, The unwelcome messenger has again appeared among us, and selected as a victim our brother, P. S. Conner; thus reminding us that while endeavoring to stay his rapid progress, we, too, are mortal; and whereas it is proper to express our sentiments and feelings on this mournful occasion, therefore,

Resolved, That in the death of Dr. Conner our profession has lost a member who, in his intercourse with his brethren, was mild, conciliatory, generous, and true; and in his treatment of the sick, kind, sympathetic, and solicitous—always blending promptness with caution; and that we bear testimony of his skill and great moral worth.

Resolved, That we deeply sympathize with the family who have lost so kind a son, so devoted a husband, and so tender and watchful a father.

Resolved, That as a token of respect for the deceased, we will attend his funeral in a body, and accompany his remains to their final resting place.

Resolved, That a copy of the above be transmitted to the family of the deceased, and also furnished the daily papers of the city for publication.

W. T. TALIAFERRO, M. D., President.

J. P. WALKER, M. D., Secretary.

[The following Report was not received in time for the September No. of the Lancet. and hence its appearance in this. We feel thankful to Dr. H. for his favors and hope they may be continued.—Ed.]

Abstract of Meteorological Observations for August 1854. By John G. T. Holston, A. M., M. D. Zanesville, Ohio.

Highest stand of Barometer occurred on the 6th,	29,28 inch.
Lowest " " " " 4th,	28,93 "
Range for the month	0,30 "
Greatest range of the Barometer on the 3d. and 4th,	0,13 "
Monthly average	29,10 "

The Barometral observations of this month were reduced to 32° of the thermometer, which correction was not made last month, by deducting 13 from the numbers then given, you nearly make the correction, and can then compare the numbers.

Thermometer stood highest 31st of Aug., 2 o'clock, P. M.	105°
" " lowest 8th " 7 " A. M.	51°
" range in the month	54°
" highest daily range occurred the 23d	36°
Dew point highest, occurred the 1st and 30th	84°
" " lowest, " 8th	51°
Average heat of the month	77°
Amount of rain	2,243 inch.
Daily average	0,06266 inch.

It rained on 9 days of this month, viz: The 3d, 6th, 7th, 10th, 12th, 13th, 26th, 27th, and 28th.

Smallest rain occurred on the 13th,	0,005 inch.
Largest rain " 3d.	0,653 inch.

Our rains came from the South West.

Prevailing disease, Disorders of the intestines. No Cholera.

Abstract of Meterological Observations made Sept. 1854, *at* Zanesville, Ohio. By John G. T. Holston, A. M., M. D.

Thermometer stood highest September 5th,	107°
" " lowest " 23d,	43°
Monthly range of thermometer,	64°
Barometer stood highest September 22d.	29,50 inch.
" " lowest " 9th.	28,17 inch.
Monthly range of barometer,	0,80 inch.
Greatest daily variation of barometer, September 23d	0,23 inch.
On the same day on which the thermometer had its lowest stand, was also the second greatest daily variation of the thermometer and a brilliant Aurora borealis	35°
Greatest variation of thermometer, September, 5th,	36°
Total amount of rain fallen in 5 days:	0,566 inch.
Daily average of rain	0,019 inch.

It will be observed that September was the dryest, as well as the hottest month in the year.

Diseases. Fevers. No Cholera.

Whole number of Deaths in Cincinnatti during the Month of September,

Board of Health Report.

OFFICE OF THE BOARD OF HEALTH, Cincinnati, 1854.

Report of Deaths in Cincinnati during the month of September.

Whole number of deaths reported, - - - - - - 337.

CAUSE OF DEATH.	TOTAL.	CAUSE OF DEATH.	TOTAL.
Appoplexy	4	Hydrocephalus	2
Arachnitis	2	Inflammation of the Brain	7
Casualty	9	" " Bowels	6
Cholera Moubus	3	" " Lungs	2
Cholera	15	" " Liver	1
Consumption	42	" " Stomach	1
Convulsions	9	Intemperance	4
Congestion of the Brain	7	Jaundice	2
Delerium Tremens	4	Measles	2
Diarrhœa	3	Neuralgia	1
Diseases of the Brain	3	Old Age	3
" " Lungs	4	Parturition	5
" " Kidneys	1	Peritonitis	2
" " Uterus	2	Poison	1
Dropsy	3	Sun-Struck	10
Dysentery	12	Small Pox	1
Fever 6	6	Summer Complaint	32
Fever Congestive	2	Suicide	2
" Puerperal	2	Teething	5
" Remittent 3	3	Typhoid Pneumonia	2
" Scarlet	4	Dead Born	11
" Typhus	8	Cause not reported	81
" Typhoid	4		
Hœmoptysis	2	Total,	337

AGE.		AGE.	
Less than one year old	36	Between 60 and 100 years	1
Between 1 and 2 years	37	Dead Born	11
" 2 and 3 "	15	Age not reported	73
" 3 and 4 "	11		
" 4 and 5 "	5	Total	337
" 5 and 10 "	7	NATIVITY.	
" 10 and 15 "	8	United States	138
" 15 and 20 "	7	England	7
" 20 and 30 "	45	Ireland	48
" 30 and 40 "	41	Wales	1
" 40 and 50 "	19	Germany	64
" 50 and 60 "	9	France	1
" 60 and 70 "	7	Nativity not reported	78
" 70 and 80 "	3		
" 80 and 90 "	2	Total	337

Published by order of the Board of Health.

C. B. HUGHES, M. D., Health Officer.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

AND

T. WOOD, M. D.,

PROFESSOR OF ANATOMY IN THE MEDICAL COLLEGE OF OHIO, AND OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY.

No. 11. CINCINNATI, NOVEMBER, 1854. Vol. XV.

Original Lectures, Essays and Communications.

Pathology, Sympomatology, &c., of Latent Pneumonia.

By S. G. Armor, M. D., Professor of the practice of Medicine in the Medical College of Ohio.

[Read before the Ohio State Medical Society.]

On another occasion, I published a somewhat extended paper, on the subject of my present essay. Further observation having satisfied me of the correctness of the views then expressed, and of the frequent occurrence of this form of lung disease, especially in the malarious districts of the West, I shall ask the indulgence of the Society, while I present, in a condensed form, some of the leading characteristics of what has been termed "*Latent Pneumonia*," hoping that I may succeed, at least in directing attention to a not unfrequent form of pneumonia, which on account of its obscurity, I fear is too often undetected in its early stage

Pneumonia has been divided, by authors, into the acute, chronic, and typhoid forms. Of these ordinary varieties, it is not my purpose to speak at present.

The symptoms of the first, both physical and rational, are well understood, and the indications of treatment plain. The

same may be affirmed of the second variety, with the addition that more care is required in physical exploration, and more caution in the administration of remedies. The last, namely, typhoid pneumonia, is usually the sequence of some other disorder, and when associated, as it frequently is, with some prevailing epidemic, or a broken down condition of the vital forces prior to the development of the pneumonia, it becomes one of the most dangerous complications. The constitution, already suffering from the depressing effects of an epidemic poison, soon yields to the arrest of a function so important to life as that of the lungs.

I have alluded to three of the most common varieties of pneumonia, for the purpose of distinctly presenting a *fourth*, differing in many important respects from those enumerated.

It has been called *Latent* Pneumonia, because, in its early stages, none of the more prominent symptoms are present. Its approaches are silent, gradual, and frequently unobserved by either patient or physician until the work of destruction is accomplished. The ordinary functional signs of acute inflammation are, in a great measure, absent. The constitutional disturbance may be, indeed, so inconsiderable that the patient can pursue his usual avocations, or, if complaint be made, it is probably treated as a common catarrh. And yet, while resting in fancied security, disease may be doing its quiet but dreadful work. The disease is often scarcely suspected, and not often recognized, unless the obscurity of the general symptoms leads the physician to explore the chest. The subjective symptoms of an ordinary pneumonia are all masked.

If the disease has made considerable progress, on being *interrogated*, the patient may complain of a troublesome, but not painful cough, with a somewhat viscid and scanty expectoration; the tongue moist and slightly furred; appetite unimpaired; respiration hurried; inability to take exercise; and, previously to *hectic* symptoms, there will be found a marked disparity *between the respiration and the circulation*.

Unlike the more active forms of pneumonia, the circulation will also be found frequently feeble; the pulse neither quick nor remarkably frequent; the capillary circulation languid, as evinced by the dusky appearance of the face, and the purple tint of the nails; and the general heat of surface not so great as in frank pneumonia. When occurring during the fall and winter months, it is frequently known by the vague term of "*Winter Fever*," and, if undetected in its earlier

stages, it often proves to be a lingering and unmanageable fever.

We are indebted to Dr. O'Reilly, of the Royal College of Surgeons in Ireland, for some valuable facts in relation to the *seat* of difficulty, as a point of diagnosis, between latent pneumonia and phthisis. Thus, while the upper portion of the left lung is the ordinary seat of tubercular deposit, its *inferior* portion is generally the seat of latent pneumonia. In this respect it differs also from acute pneumonia, the inferior portion of the *right* lung being the usual and primary seat of inflammation in this variety. In phthisis, the tubercular deposit proceeds from above downwards; in latent pneumonia, the disease extends from below upwards. Like ordinary pneumonia, however, the membrane lining the *air cells* is the seat of the inflammation, and, like it, the inflammation may *originate* in the vesicular structure, and subsequently involve the large tubes; but, unlike it, the inflammation does not occasionally commence as a bronchitis, and gradually extend to the smaller tubes and air vesicles. Complications of this kind are usually attended with a higher state of sthenic excitement than is found in Latent Pneumonia.

It will be understood, however, that I speak of *general* laws; the exception as to the seat of difficulty, and other modifying influences, applying to this as to all other forms of pneumonia.

The causes which produce Latent Pneumonia are such as give rise to protracted congestion of the lungs; and hence it is, that this form of pneumonia often prevails in malarious districts of the Western States. The cold stage of malarious fevers produces, in a high degree, the marks of intropulsive congestion. Whatever may be the varied speculations as to the nature and essence of the malarious poison, and its mode of operating upon the human system, it must be conceded that congestion of all the internal organs is one of the most formidable elements of disease against which we have to contend. If this be repeated and protracted, the contractility and tone of the blood vessels will be impaired; congestion will not, therefore, cease after the subsidence of the chill, and the result is a slow, insidious and latent form of inflammation.

Without stopping to review all the varied causes of inflammation, we will sum up, by remarking that they may be all divided into two classes: 1, those that cause determination of blood; 2, those that produce congestion. In the one in-

stance, *irritation*, followed by determination, becomes the primary element of disease. In the other, *congestion and atony of the blood vessels* become the primary element, and irritation is secondarily set up. In Latent Pneumonia *congestion always predominates over the determination of the blood.* Hence its marked asthenic character. All the symptoms are less prominent than the active or sthenic variety. There is little or no pain; fever and other signs of increased action are comparatively slight; nor does it tend to such speedy results as the acute variety. For this reason, the physician should be constantly on the alert, that he may detect, in its earliest stages, a disease so formidable in character when fully developed.

Latent Pneumonia offers no exception to the three stages, with their relations one to the other, as they occur in the more frank variety, although, as has been remarked, they do not take place with the same rapidity, nor are their symptoms so prominent. In one respect, however, the auscultatory signs differ in this, that the true crepitant rale, so constantly present in the stage of engorgement of an active pneumonia, and even heard in the local or globular variety, is rarely detected, and, if heard at all, it is as a muco-crepitant rale.

Again, *Gangrene* of the lungs, which may occur as a primary or secondary affection, is an occasional termination of this variety; especially if occurring in connection with an altered condition of the blood, which is incapable of supporting the vitality of the parts, and which is usually indicated by the early symptoms of depression.

For obvious reasons, derangement of the liver, followed by jaundice, is not an unfrequent complication of this form of pneumonia. Many of the causes already enumerated, especially intropulsive congestions, occasioned by malarious fevers, very readily produce diseased action of the Liver. In the first place the direct physiological relation existing between the lungs and liver as *excretory* organs, renders them liable to become complicated in diseased action. But if this relation did not exist, still pulmonary congestion, followed, as it always is, by distention of the right side of the heart, and by a direct *backward* action, produces venous congestion of the liver, with a consequent arrest of its secretion.

The *treatment* of this variety of pneumonia, is attended with much difficulty, and a failure to recognize the disease, or a mistake in diagnosis as to its precise character, may be fatal to the patient. General blood-letting, upon which so

much reliance is placed in the acute variety, is illy borne in this. I would, perhaps, better state the fact, by saying that it is *usually fatal.* Hundreds are, doubtless, annually sacrificed, in this low form of lung disease, to bleeding, antimonials, and the antiphlogistic regimen. Their tendency is to weaken the nutrition of the lungs, increase the passive hyperæmia of the blood vessels, depress the nervous system, and impoverish the blood.

In both active and latent forms of pneumonia, dyspnœa will be to a greater or less extent, present, and in proportion to its presence, will there be repression of the pulse; but in one, the pulse will frequently rise as the blood flows; in the other, it will flag. In the one case the debility is *apparent;* in the other it is *real.* Hence the caution which has to be exercised in the use of all remedies which are calculated to depress the vital forces. Beef-tea and quinine are oftener indiacted than blood-letting and antimony. The patient's strength must be supported; the local hyperæmia must be overcome; and although, to accomplish this, it may be necessary, in some cases, to abstract blood locally by means of cups, it may be equally necessary at the same time, to husband the patient's strength by the administration of tonics. The great prominent fact should never be lost sight of, that Pneumonia occurs in this form solely under circumstances of general physical debility. Hence the treatment must be mainly directed to the state of the system generally.

An important element in the treatment of this form of Pneumonia, is to guard against the complication of a Bronchitis. To accomplish this we should be careful to prevent the admission of cold air to the bronchial mucus membrane. Early and close attention to *uniform temperature* can not be too strongly urged.

In the more advanced stages, the moist, coarse rales are frequently heard over a large extent of surface. If, in connection with this physical symptom, the pulse be feeble, the skin dusky, cold and relaxed, we should loose no time in putting our patient on the use of some of the stimulating expectorants, and perhaps none equal in importance, the senega and sesqui-carbonate of ammonia. This combination appears to be peculiarly adapted to those cases in which the secretion into the tubes is considerable, and the patient expectorates with difficulty.

The sesqui-carbonate of ammonia, wine, barks, and the

nutritious animal broths, well seasoned with the chloride of sodium, often exercise a marked control over the local disease.

There has been much difference of opinion as to the propriety of blistering the chest in the asthenic forms of pneumonia. My own experience justified their application in the form of pneumonia which I have described; indeed, I regard their action as much more certain than in ordinary pneumonia, and their use may be resorted to much earlier. They should be frequently applied—applied small, and not allowed to remain until exhausting suppuration follows their application. Counter irritation, in the form of strong acetic acid and turpentine, is also an important remedy.

If a malarious influence can be detected, the paroxysm should be at once arrested. No element of disease could be more pernicious in its tendency. Any indications of periodicity, therefore, however slight, should be promptly met by the use of the *sulphate of quinine*. In malarious districts, the powers of this remedy are often singularly displayed in the treatment of this form of pneumonia.

It is not my purpose, however, to detail the *treatment* of Latent Pneumonia. A more important question relates to its *Pathology*. If this be right, we can scarcely err in the indications of cure. If it be wrong, the mistake will be almost necessarily fatal to the patient.

There are other forms of pneumonia, in many respects remarkably similar to the one I have described, and the importance of which it is difficult to exaggerate—I allude to pneumonia when occurring as a *secondary* or *intercurrent disease* in typhus fever, phlebitis, puerperal fever, Bright's disease, rheumatism, &c. Here also, as in Latent Pneumonia, the inflammatory character of the local malady is modified by the general condition of the constitution; and if the treatment be mainly directed to the pneumonia, regardless of the Zymotic disease upon which it has been engrafted, death must inevitably follow.

On Uterine Hemorrhage. By S. D. Sheets, M. D., *Dayton, Ohio. Read before the "Montgomery County Medical Society."*

I propose to call the attention of this society for a few minutes, to the subject of uterine hemorrhage, not with the

design of presenting any thing new for your consideration, but simply for the purpose of offering, in part, my own views, and of eliciting yours. I conceive that no subject, more important, can arrest the attention of the medical practitioner; and there is no one more grave which we see more frequently in the ordinary walks of the profession. In the range of common diseases there is no one which proves so speedily fatal, if left alone, or unskillfully managed, as that now under consideration. The vital stream seen flowing from the mother causes the most dreadful apprehensions to the affrighted little household; the presence of blood strikes their hearts with terror, and how quickly the result is comprehended; they are conscious that life must soon terminate if the crimson flood be not speedily arrested. Tell me then, has a physician a more important mission than the management of such cases; and how doubly important that he should understand himself and be prepared for any emergency. Medicine is here divested of all mysticism; grave and wise physiognomies will avail nothing in averting impending results; there is no substitute here for thorough knowledge and correct principles. How broadly the line of demarkation is now drawn between tbe intelligent practitioner and the mountebank, or old woman who hangs out his or her "shingle" to the world as midwife! And what a signal triumph over disease here awaits every one who is competent to the trust reposed in him; he can almost invariably give a favorable prognosis, and exhibit the power and adequacy of our remedies in verification of our predictions, proving conclusively to every one that we perfectly understand the nature and treatment of the disease, and that there is a reality in the profession of Medicine.

In this paper I shall only speak of uterine hemorrhage as connected with utero gestation. Although it may occur at any time during pregnancy. 1st, because it happens more frequently during certain periods, as well as after gestation has been completed, and on account of attending circumstances, I shall notice it under three divisions. Dr. Rigby and others divide hemorrhage into unavoidable and accidental; the former occurring when the placenta is attached to the os or cervix uteri; the latter, when it is attached to the body or fundus. This division is rather objectionable; for all hemorrhage is unavoidable when the placenta is partially or entirely detached, and it does not cease until there is a sufficient contraction of the uterus to control it. Internal hemorrhage

too, may occur during labor, when the placenta is in the *fundus*, which is unavoidable, though, according to the classification, it would come under the head of accidental hemorrhage. Again, the bleeding in early abortions, form an adhering placenta, though not attached to the os or cervix uteri, is unavoidable. The varieties I designate are, 1*st*. *The hemorrhage which occurs during the first three or four months of pregnancy; 2dly. That during the last three months; and 3dly. That which occurs during and after labor.* In the first division the bleeding is associated with an effort at, or with complete abortion; in the second, placenta prævia; and, in the third, with an inability or failure of contraction oft he womb. In all the varieties the hemorrhage proceeds from the same cause, *videl.*, a partial or complete separation of the placenta, which is sometimes protracted by inertia, of the uterus, or a retention of some of the secundines, clots, or the embryo itself, which become lodged in the cervix uteri, and which often cause the most excruciating pains, with a profuse discharge of blood.

In addition to the precise point from which the hemorrhage proceeds, there appears to be a great difference of opinion; we find a number of theories advocated by different authors. Dr. Robert Lee says, "It is from the valvular like venous openings in the lining membrane of the uterus, and of the arteries which are laid open on the separation of the placenta;" Drs. Ashnell and Chowne think, "it is from the open orifice in the walls of the uterus;" Dr. Simpson "believes it to be from the placenta;" while Drs. Radford and Murphy "supposed it to be from the uterine and placental surfaces." This last opinion must be predicated upon the view first set forth by John Hunter, of a direct communication between the placenta and uterus, by means of what he calls the "curling arteries." These arteries proceed from the uterus to what is called, by him, the cavernous structure of the placenta, and, by Weber, named a "sett of colosal capillaries;" and, in separating the placenta, there is then arterial hemorrhage from the uterine arteries, through the cavernous structure, and venous hemorrhage by regurgitation from the veins of the uterus. Velpeau and Meigs are both opposed to this idea of a uterine portion of the placenta. In a number of experiments performed by Dr. McKenzie upon the pregnant bitch, a few days before labor, the blood flowed only from the uterus, when the placenta was separated. Some difference in the

disposition of the vessels in the maternal portion may account for this. But he observed "a number of white, elastic, filamentous-looking bands pass from one organ to the other, which were easily torn across, and which he thought were utero-placental arteries, which corroborates, if true, the opinion of John Hunter. If the placenta was lacerated or torn while still partially adherent, blood would flow from it, though in a comparatively small quantity. Some post mortem experiments, made by Prof. Meigs, on the human female, led him to infer that the hemorrhage proceeds entirely from the uterus. How conflicting are his observations with those of the Hunters; while he could not see the appearance of a vessel passing from the uterus to the placenta, they describe some of them as being "as large as crow-quills!" He affirms, too, that he has removed a vast number of placentas without staining the hand with blood, or perceiving a drop upon the mass itself. Now, if he intends to convey the impression that, in a vast number of cases, no blood was lost upon the separation of the placenta. I do not believe a word of it, unless the children died previous to delivery. There may have been hemorrhage, as usual, but, by a great deal of care, he may have removed the placentas as affirmed, for we have all, no doubt, observed what a slight tendency blood has to adhere to the after-birth or cord. He afterwards states that the separation is essentially hemorrhagaic! With a normal circulation I do not see how any other condition can obtain; blood must flow from the abraded vessels until their mouths are closed by uterine contraction. I remember having seen one bloodless case, but it was a patient whom I bled twice, most profusely, in the course of a few hours, in an attack of puerperal convulsions; the child was still-born. In children, who die before delivery, the current of blood is withdrawn from the placenta, as it is no longer required there. High authorities can be arrayed on all sides of the question at issue; but it would require too much time and space to give the opinions of all the great luminaries in the profession. I am decidedly of opinion, that, in the nature of things, there must be an intercommunication of blood-vessels; I cannot conceive how a vital attachment can otherwise exist. When surfaces are placed in such close apposition, and a direct union occurs as in this case, do we ever fail to find arteries and veins passing from one texture to the other? Sometimes the placenta is so firmly attached that it appears incorporated with the

substance of the womb. I have been foiled in my attempts to to extract it in early abortions, when I could introduce my finger far enough to get hold of it; and I have pulled, without affecting its position, until I was afraid to use more violence, and all I could do was to scratch off as much as I could, and remove it piecemeal. A case is recorded when both the placenta and membranes were so firmly attached to the womb that they could not be removed, after death, without destroying the integrity of the latter. Furthermore, how is the blood of the fœtus oxygenated? Is it not performed through the medium of maternal blood; and to the performance of this function is it not a "sine qua non" that the blood of the mother should pass into the placenta, so that the two streams can come into contact? If the blood of the fœtus passed to the uterine surface of the placenta, which must be the case under a different state of things, should we not expect to find hemorrhage occurring as readily and as often from the placenta as from the uterus, which would frequently cause the death of the child. Now, who has ever seen such an instance of death from placental hemorrhage at that point!

I now proceed to the three varieties of hemorrhage, 1st. *of hemorrhage during the first three or four months of pregnancy.* It is during this period that hemorrhage, before labor, occurs most frequently; and though not the most perilous, it is sometimes the most difficult to manage. During the first six weeks, before the after-birth is formed, the hemorrhage is seldom at all serious; the ovum passes away, surrounded by the membranes, the womb contracts and the hemorrhage ceases. In this instance the hemorrhage is caused by a separation of the caduca from the surface of the uterus. On account of the uterus, and of course the vessels, having undergone but little development during the first three months, the hemorrhage is not so rapid as in the latter stages of gestation, and consequently not so quickly fatal; but on account of this want of development, when the placenta adheres or is otherwise retained, it is sometimes impossible to extract it. It is true, instruments have been invented for the removal of the after-birth, but I greatly doubt their utility, as well as their freedom from danger; in some cases they may be of some service, but must entirely fail in others. I have tried the hook, but could accomplish nothing with it; as often as I would insert it in the placenta it would tear out; and I think this must always be the case when the after-birth

adheres with any degree of firmness. Whenever we find a sanguineous flow unconnected with hemorrhagia polypus, cauliflower excrescence, cancerous, or other malignant disease of the uterus, we have strong reason to suspect a placenta as being at the foundation of the trouble. I believe an adhering portion of the after-birth, or its being partially adherent when all remains, is invariably the cause of protracted hemorrhage during the period under contemplation. When the placenta is entirely detached, portions of the involucrum, fibrinous clots, or the ovum itself, may become engaged in the cervix and produce bleeding, as well as intense pain; but they are at once turned out by the finger, when the whole trouble ceases. A question of great importance presents itself in this connection, concerning which we are sometimes called upon for an opinion. The moment of the case relates only to our reputation, which is compromised by a false diagnosis. The question is this: How much hemorrhage can a woman suffer, or can it be repeated a number of times, and her gestation go on? No one will say every woman miscarries who has had hemorrhage, for we know this is not a fact; but when a woman has had several attacks, and we have not seen an ovum, it is exceedingly difficult to determine whether she is enciente or not. A patient of mine was attacked with a sudden gush of blood, in the latter part of February. Having been married but a short time, and being exceedingly modest, nothing was said about it at the time, but, in a few days, on account of her imprudence, she suffered so much pain from prolapsus uteri that I was called in. A pessary was introduced on the 9th of March, and worn until June. On the 3d of the following December she was delivered of a child. Here the bleeding must have occurred very soon after conception, but there was no abortion. A woman, then, may have hemorrhage, and her gestation still proceed to term. This hemorrhage is caused by a partial detachment of the placenta; and when miscarriage does not follow, I presume the attachment is renewed. Meigs says, "if a woman lose a teaspoonful of blood previous to the fourth month, she will, in all probability, miscarry," When hemorrhage has occurred several times, I think we may pretty safely pronounce against a continuation of the pregnancy, (unless other symptoms should cause us to decide differently,) for in all probability, during the first attack, there was a miscarriage, and the bleeding is now occasioned by an adhesion of part

of the placenta, or by a partial adhesion when all of it remains, or it may be a return of the menses. When there is no positive evidence of the existence of pregnancy, it is exceedingly difficult to say whether the sanguineous flow is connected with miscarriage, or whether it is a return of the menstrual evacuation. It must be remembered, that in consequence of some change in the habits of a female, the catamenia may be suppressed for three or four months, and then suddenly and profusely re-appear. This suppression is said to occur frequently in persons who are very anxious to have offspring; also in women who leave the country to reside in large towns.

The treatment is very successful, though tedious in some cases. If called before life is too far gone, we can always declare the case as under our control, and assure a recovery.

When there is any uncertainty about pregnancy, we must always adopt a course of treatment for the prevention of miscarriage. If there is no doubt of her pregnancy, then our course is plain; if the embryo has not passed off, we must put forth every effort to save it, and arrest the bleeding. This we endeavor to accomplish by having the patient in the recumbent posture, enjoining perfect quiet, and by administering opium astringents and refrigerents. If these means fail, and the hemorrhage becomes alarming, we have a certain and effectual remedy in the tampon; but it should not be used when the embryo is still in the womb, unless the case becomes very urgent, for it sometimes causes the blood to separate the placenta from the womb, which insures the death of the fœtus. If the embryo be out of the question, the tampon and ergot can be safely used at any time. When hemorrhage continues, we should make a vaginal examination, to learn whether the after-birth, or part of it, remains, which can sometimes be reached with the finger, or whether an ovum is not in the cervix uteri. If we find an after-birth we must endeavor to extract it; if impossible, we then administer ergot to enable the womb to throw it off, or, at least, to have some effect in controlling the flow of blood. We must always be careful to keep the *cervix uteri free from portions of the placenta, clots, etc.* After the fourth month, and until the latter months of utero-gestation, (and only then in cases of placenta prævia,) we have but very little hemorrhage. We now come to the next division of our subject.

2dly. Of Hemorrhage during the last three months of

Pregnancy.—This variety is produced by the mal-position of the placenta; but the cases are not frequent, though always serious and unpleasant to treat. The placenta may be placed immediately over the os internum, or only one edge may cover it; the danger is proportionate to the extent to which the former covers the latter, and vice versa. It is seldom discovered until the cervix uteri begins to expand to make room for the fœtus, which is in the sixth or seventh month; sometimes it is not suspected until labor comes on. Generally as soon as the cervix begins to expand it becomes somewhat separated from the placenta, which causes a rupture of vessels, and consequent hemorrhage. The patient not being aware of the real cause of the discharge of blood, attributes it entirely to over-exertion, a strain, or something of this kind; she may recover and attend to her duties until a further expansion renews the hemorrhage, when she becomes anxious and seeks advice. The first attack is rarely dangerous; but sometimes the bleeding will continue until the patient be delivered, or, until death ensues if she be not properly treated. A case of this kind occurred with me not long since. The patient had been flooding a week previous to my being called in; she was extremely debilitated from the excessive loss of blood; her extremities were cold, pulse almost imperceptible, and was having, too, frequent attacks of syncope. Fearing she would not survive delivery in this condition, I inserted the tampon, applied cold, and administered laudanum and stimulants to induce reaction, which was accomplished sufficiently to warrant removing the child. When I was preparing to turn, and explained what I was about to do, she was very much alarmed, and begged to remain quiet a few hours longer, to which I acceded, and returned to my office, promising to see her at the expiration of the time. While on my way to the house, with my friend Dr. Carey, we discovered that an "*outsider*" had been called in during my absence; of course we abandoned the case to him and death! I afterwards learned that both mother and child were buried next day. Whenever hemorrhage occurs during the latter months of pregnancy, we should suspect this position of the placenta, and satisfy ourselves by an examination per vaginam. When it is discovered early, our treatment should be directed to preserve both mother and child until the end of gestation, or until the fœtus becomes viable. This is fulfilled by repose, small venesections, gentle

aperients, the tampon, &c. There is no danger in using the tampon in these cases, for the blood cannot enter the womb, and if it did, there is not sufficient space in which it could collect so as to prove dangerous. The last resource is to turn and deliver, which should be performed at once, when at or near term. If the os is undilated or undilatable, use the tampon and wait; some separate the placenta to stop the bleeding, but this always occasions the death of the child. If the patient should be much reduced, when called, we should plug the vagina, administer stimulants and opium, if indicated, and then wait for reaction; for, if we should turn, in this debilitated condition, she might die outright with the gush of blood upon the conclusion of delivery. In performing this operation, we should not run the hand through the middle of the placenta, after the manner of some, but separate a sufficient portion from the womb, if it be not already separated; pass the hand high up, rupture the membranes, and quickly bring down the feet, and the thighs pressing on the parts will check the hemorrhage until delivery be accomplished.

We have now arrived at the *3d and last division: Hemorrhage during and after Labor.* Hemorrhage, during labor, is caused by an early separation, partial or complete, of the placenta; it generally occurs when the membranes are unruptured, and thus the liquor amnii prevents the uterus from contracting about the body of the child, which would arrest the bleeding. Hemorrhage always follows a separation of the placenta, so that it is a constant attendant upon labor; but it is not often serious, for as soon as delivery is accomplished the womb contracts and the discharge is checked. Hemorrhage, after labor, is divided into internal and external. Both are exceedingly dangerous, and death soon ensues when they are continued. Internal hemorrhage is caused by total inertia of the uterus. This organ being too weak to expel the fluid effused into its cavity, or an accumulation of clots may prevent its escape. It is a very insidious form of hemorrhage, and if we are not on the qui vive, it is not detected until the womb is enormously distended with blood, and the patient is in articulo mortis. Never leave a woman, after labor, without being assured of firm contraction of the womb; a hasty departure under other circumstances may be fatal to the patient. External hemorrhage is caused by partial inertia, irregular contractions, or morbid adhesion of the placenta. Hemorrhage, during labor, is sometimes remedied by puncturing the mem-

branes, which enables the uterus to contract upon the child and arrest the bleeding. If it continue, we should resort to other means, as venesection, opium, acetate of lead, cold to the hypogastric region, removal of the pillows from under the head, with elevation of the hips, &c.; if these fail, we must proceed to deliver by turning or by the forceps, according to the position of the head. When the os uteri is so rigidly contracted as to forbid manual or instrumental delivery, Meigs recommends feeble ergotism to condense the uterine tissue, but not to a degree to injure the child. Here the tampon fails; it will prevent the blood passing away, but it will only be fatally accumulating internally. If hemorrhage be produced by an adhering placenta, we must introduce the hand, detach and remove it. When it occurs after the delivery of the placenta, the great indication is to produce contraction of the womb. We now lower the head and elevate the feet, thus receiving the benefits of gravitation, which not only diverts the current of blood somewhat from the womb, but measurably relieves the fainting, which is sometimes annoying. The next remedy is ergot; and at the same time we can use friction over the womb, or affusion of cold water; the effect is more powerful when warm and cold water are alternated. If there be too much danger, pressure can be easily made upon the abdominal aorta to arrest the flow of blood. Some recommend the introduction of the hand into the uterus, which, by its presence, is said to produce contraction; ice has also been introduced, with benefit. In cases of extreme exhaustion, oil of turpentine in ʒi. doses, repeated in five minutes, is said to have rescued patients from the jaws of death. Two doses were generally found sufficient. No bad effects were experienced by this large quantity of turpentine remaining in the system as much as thirty hours. Laudanum, in ʒi. doses, is very confidently recommended by some. Sometimes we have the most intense pains associated with hemorrhage; if you make an examination, you will find some portions of the placenta, or hard clots, which the womb is trying to expel. The most excruciating pain I ever witnessed was in a case of this kind; and a number of times after her accouchment, I was called to remove clots which had collected in and about the os uteri.

On the treatment of Poisoned Wounds, by the Application of Cupping Glasses and the Sub-Cutaneous Infiltration of Solutions of Iodine—By DANIEL BRAINARD, M. D., Prof. of Surgery in the Medical College at Chicago, Corresponding Member of the Societe de Chirurgie de Paris, etc., etc.

[From N. W. Medical and Surgical Journal.]

GENTLEMEN OF THE SOCIETY.—It is customary, on occasions like the present, to select as a topic for discourse some subject connected with the general interests of the profession, such as its history, its wants, its claims, or its duties. I hope to be pardoned for departing in some degree from this practice, and presenting before you a simple essay on a surgical subject. The reason for adopting this course is, a firm conviction that the first want, and greatest interest of the medical profession, is the improvement of medical science, and because I have made poisoned wounds, to which your attention is asked to-day, the subject of especial study, and entertain views concerning their treatment, which I believe to be both new and important.

The class of poisons to be considered is that, denominated by Orfila, septic, or putrid poisons. It embraces, among other substances, the venom of serpents, the woorara or American poison used on arrows, putrid animal matter, as that inoculated in dissecting wounds, etc.

These substances possess the property, in common, of being inocuous, or little active when taken into the stomach; but causing the tissues to run rapidly into gangrene when they are placed on the surface of recent wounds, and of being more rapidly fatal when thrown into the blood vessels.

Christison and other toxicologists have not admitted the existence of septic poisons, but I think no one accustomed to witness the effects of the venom of serpents on a wound, could doubt the propriety of admitting such a division.

All rational views of the treatment of poisoning, date from the period when poisons were found to exist physically in the different organs of the body, and exert their influence on the solids and fluids by virtue of their peculiar properties. This discovery is due, mainly, to Orfila, and it is upon it that the practice is founded of using such means of treatment as are capable of neutralizing or diluting the poison, or

(Being the Annual Address before the State Medical Society of Illinois, delivered June 4th, 1854, on leaving the chair as President of the Society.)

causing it to be eliminated from the system in the excretions. In the case of mineral and vegetable poisons, chemical antidotes are useful, but in a limited degree, and only when the substance to be neutralized is still retained in the stomach. As soon as it has been absorbed, dilution and elimination are the only means of obviating its dangerous effects.

With regard to animal poisons, neither neutralization by chemical agents nor dilution, nor elimination, has hitherto been successfully attempted. The means resorted to at the present time, are the excision or destruction, by caustic, of the part on which the poison has been inoculated, and the use of such means as are supposed to be capable of counteracting its effects.

My object in this address is, to show that the venom of serpents and the woorara may be neutralized after being introduced into the tissues; to show the manner in which this may be effected, and to prove the efficacy of the treatment by experiment before you.

Before proceeding to speak of this treatment, it may not be without use to cast a glance at some of the means reputed to possess efficiency against the bite of serpents, in order to show how slight are their claims to confidence.

Washing and sucking the wound, inasmuch as they have a tendency to remove the venom from its surface, are,to some extent, serviceable. Yet Fontana found them insufficient to prevent death, in birds bitten by the viper, (Traite sur le Venin de la Vipere, etc. Florence, 1771, vol. 1, p. 106). Sugar and common salt, mentioned by Humboldt, as the antidotes to the woorara, used by the natives of South America, are without any effect, as Magendie has shown by experiment.

The strong mineral acids and aqua ammonia did not, in the experiments of Fontana, prevent the action of the venom of the viper when mixed with it before inoculation. Making incisions about the wound was found by Fontana to hasten death, after the bite of the viper. Nitrate of silver, mixed with a solution of woorara, does not prevent its fatal effects. Mixing the venom of serpents, or the woorara with alcohol or oil of turpentine, preserves them, and makes them more active than when they are mixed with water. In cases where excision of the part, or its destruction by caustic, or the actual cautery have been resorted to, the result has usually been fatal. The use of cups upon the part, and ligatures about the

member, are the only means known, whose efficiency against the venom of serpents has been proved by experiment. Their beneficial action results from their power of retarding absorption, thus causing the poison to enter the circulation slowly. Pennock has shown that this is not produced by the removal of the pressure of the atmosphere, as Barry supposed, but by the pressure of the edge of the cup, which interrupts the circulation in the vessels of the part.*

Alcohol, taken to intoxication, has at the present time the reputation of counteracting the effects of the venom of several species of serpents. The evidence in its favor is scarcely sufficient to justify the confidence reposed in it, as the following fact will show:

1. When mixed with alcohol the venom is rapidly fatal if inoculated.

2. Alcohol injected into the tissues, or introduced into the stomach of birds, or small animals which have been bitten, hastens death. The circumstance is not conclusive, as alcohol is of itself a poison for them.

Persons bitten by rattlesnakes, when in a state of intoxication by alcohol, are not, on that account, secure. I have authentic information of four cases in which the bite of that snake proved rapidly fatal on intoxicated persons. Another may be found related in the American Journal of the Medical Sciences, Vol 8, 1831.

As not more than one in ten of the wounds made by the most venomous serpents prove fatal, a case of failure of a remedy is sufficient to counterbalance many cases of its success.

As the woorara is one of the poisons with which I have experimented, and the one which I propose to use to-day, it may be well, before going further, to say a few words on the subject of the nature of this substance. As usually met with, the kind which is brought from South America is contained in small gourds, over the internal surface of which it is spread. On being detached it presents a dark color, has a resinous fracture, a bitter taste, is readily mixed with water, but imperfectly dissolved by it. Its appearance is the same when mixed with alcohol; but both these fluids dissolve the active principle of it. The solution is neither acid nor alkaline. If the quantity of water used be small, the mixture has a ropy, tenacious consistence. The solution is coagu-

* American Journal of the Medical Sciences, vol. 9, 1832.

lated by the nitrate of silver, and by the solution of iodine and iodide of potash in distilled water, and, when treated with the latter solution, neither the part coagulated nor the fluid expressed from it retains its poisonous quality. It does not effervesce with acids. Its aqueous solution is not coagulated by heat, and boiling does not impair its activity.

The active principle has generally been considered as analogous to strychnine,* and Pereira states that the strychnos toxifera yields the basis of it.

Nearly all recent authors have copied the account of its manufacture given by Humboldt,† who enters into detail and says it is made from the bark of the root of a species of *liane*, called by the natives of the banks of the Amazon, Bejuco de Mavacure.

"The chemical analysis of the woorara has been performed by Boussingault and Roulin, (Annales de Chimie, September, 1828,) who found in it a better principle, *very different from the strychnia* acetic acid, gum, red coloring matter, salts, etc.‡

De la Condamine states that it is an extract made by heat from the juice of diverse plants, about thirty in number, and that the *liane* is one of them.

Such was the state of our knowledge on this subject, when in 1850 Messrs. Pelouze and Bernard read a note at the Academy of Sciences on the subject.

Mr. Goudot, who furnished them with a specimen of the poison, confirms in general the account of Humboldt, as to the manner of its preparation from the juice of the *liane;* but he adds the important statement that "before the extract is quite dry they drop into it some drops of the venom of serpents collected from the vesicles of the most venomous species." Messrs. Pelouze and Bernard conclude that "the woorara acts upon animals in the manner of a venom."‖

From the discrepancy of these different accounts, it might be inferred that the various poisons prepared by the Indians of the Amazon and the Orinoco differ essentially in their properties, and Humboldt states that such is the case. There are, however, two facts stated by Humboldt himself which go to favor the opinion of Bernard and Pelouze. The first is that the juice of the *liane*, before concentration, is inocu-

* Element of Materia Medica, vol. II., p. 364.
† Voyage to the Equinoxial Region of the New Continent, vol. II., pp. 547 to 558.
‡ Dict. de Medicine, Tome IX., p. 483.
‖ Comptes Rendus de l'Academie des Sciences, Seance Du October 14, 1850.

ous. The other is that "the Indians, who have been wounded by poisoned arrows in war, described to us the symptoms as entirely like those which are observed from the bite of serpents."

It is not probable that a juice from which a poison of such extraordinary activity is manufactured would be itself without power; and it is impossible to confound the effects of strychnia and those of the venom of serpents when applied to a wound on the human subject. For myself, having made more than a hundred experiments with the woorara, I entertain but little doubt that the active principle of the specimens, which I have made use of, is the poison of serpents preserved in extractive and gummy matter. These specimens were two. The first I believe to be a part of the same as that furnished to Messrs. Bernard and Pelouze by M. Goudot, as it was procured for Dr. J. W. Green and myself from M. Flourens at the Garden of plants, by the Prince Charles Bonaparte. The other, which came from the Amazon, was furnished me by Dr. David Green, of New York. Their appearance and action were identical in every respect.

My reasons for believing its active principle to be the venom of serpents are these:

1. Its effect on birds and animals are strikingly like those produced by the venom of the rattlesnake; and in many cases no difference can be perceived between them.

2. These facts are entirely unlike those produced by the vegetable alkaloids.

Iodine neutralizes it as it does the venom of serpents, but has no effect on vegetable alkaloids.

4. It is, like the venom of serpents, innocuous when taken into the stomach, except, perhaps, when used in very large quantities, or in circumstances very peculiar. This is not the case with any known vegetable poison.

It is well known that the poison used by the *North* American Indians, for their arrows is that of the rattlesnake. I have learned this from such varied sources as not to leave any doubt on the subject. My inquiries have related to the Indians of California, New Mexico, and Texas, and been directed to medical officers of the army and intelligent travelers. The answers have never varied. The art of poisoning weapons is no longer a secret among them, but is often employed by those whites who adopt their customs. Dr. George Johnson, of St. Louis, who has traveled extensively on the Rio

Grande, gave most accurate and valuable information concerning the habits of several Indian tribes in this respect. He states that there is a variety of rattlesnake on the Rio Grande, whose poison vesicle is much developed, and forms a prominent projection. This species is much sought for, on account of the quantity of virus contained in the sac.

I am, therefore, justified in stating that the poison used for arrows is, *in some instances*, the virus of serpents. There is great reason for believing that the process of preparing it is, as far as possible, kept a secret, except in what relates to the preparation of the juice of the plants destined to serve as a vehicle for the preservation of the venom.

If I am mistaken in this point, and the woowara should be found to contain some poisonous vegetable principle hitherto unknown, it will not invalidate my conclusion in regard to the effect of iodine upon it. It would only extend the application of this substance to the treatment of two kinds of poisoned wounds, instead of restricting it to but one.

Having disposed of this point, I come now to the method of treatment which I propose for wounds poisoned by the woorara.

1st. It consists in the application of cups upon the part, or of ligatures around the member wounded, so as to arrest absorption.

2d. In injecting or infiltrating into the subcutaneous tissue the solution used as an antidote.

The cups should be employed for a short time before the infiltration is employed, so as to fill the tissues with fluids, and prevent the injected liquid from producing abscess by mechanical injury. They should be allowed to remain on from five to ten minutes after the infiltration has been effected, in order to allow time for rhe antidote to come into contact with the poison before the latter has entered the circulation. In case much swelling and effusion have taken place before treatment can be applied, the application of cups would be unnecessary, as the fluid injected would in that case pass freely through the tissues without it. The strength of the solution should depend on the state of the parts, and the extent to which it is desired to disseminate it in the tissues. For a recent wound ten grains of iodine and thrice that quantity of iodide of potassium to the ounce of distilled water should be employed. It should be put upon the wound, and the tissues filled with it for an inch around. When the swelling is

already extensive, one-half or one-fourth the above strength will suffice; and the solution should, in that case, be disseminated as extensively as possible through the part affected, by introducing it, if necessary, at several different points. In a recent case I would advise one dram of the solution to be injected.

In order to perform the injection or the infiltration perfectly, it is requisite to have cups to fit the inequalities of surface of the different parts of the trunk and members. Although ligatures can be made to arrest the circulation, and consequently the absorption, and fill the tissues with fluids, they do this less rapidly and less perfectly than cupping glasses. To perform the infiltration, small trochars, like the exploring trochar, are required, or they may be made still finer. To the canula of the trochar, a small syringe, like that called Anel's should be adapted. After the trochar has been introduced, and the stylet withdrawn, the syringe should be adapted to the canula; while the injection is gently pressed in, the cupping glass should be gradually exhausted. This is the method I advise on the human subject. When it is desired to employ it for experiment, a small syringe, the piston of which moves with a screw, of which half a turn presses out a drop, and of which the point is also adapted to the canula, should be employed to insert the poison in the tissues.

I was led to the belief that iodine is the proper application to the snake bite by experiment. Selecting salts which had not been used by others, I found the selection I have recommended, to be the only one which prevented the fatal effects of the poison, without procuring an eschar. The solution of the iodide of Potassium alone, has no effect as an antidote.

I am aware that the infiltration into the tissues is the part of the treatment which will be longest in receiving the assent of physicians, and the most difficult to introduce into general practice. Nevertheless, it is easy to understand, a priori, the reason and the necessity for so doing. In order to neutralize a poison once introduced into the system, it is essential that the antidote should be also introduced, and placed there where the poison exists, and in contact with it. Now, in case of an inoculated poison, any application which is confined to the external surface of the skin, is necessarily insufficient, as it cannot pass through the cuticle. Antidotes taken internally cannot reach the poison in more than the slightest quantities. If they pass into the circulation, they are quickly

eliminated by the kidneys. In inoculated poisoning, the antidote can only be successfully applied by inoculation, or, what is the same thing on a large scale, infiltration. Experiment proves this to be true. A quantity of the venom of serpents, or of woorara, once introduced under the skin, neither medicines swallowed, nor those applied externally, will prevent the death of the animal, unless these latter are caustics and instantly destroy the part. But the introduction of the antidote into the tissues is capable of neutralizing it.

It happens fortunately, in this instance, that the antidote is a substance whose effects, when introduced into the tissues of the human subject, are well known not to be injurious. The chemical relations of iodine are similar to those of chlorine, but its actions are slower and less energetic, and it is probably from these that it derives its virtues as an antidote to septic poisons. It is certain that it prevents the discoloration and gangrene, which are always noticed on the surface of poisoned wounds when left to themselves.

My experiments were commenced with the venom of the rattlesnake, and made principally on pigeons, dogs and cats. Birds die from it much sooner than quadrupeds, and are therefore much more difficult to save by treatment. The way of using the serpent is, to have it confined in a groove, with only his head projecting. Denude the breast of the pigeon of its feathers, and when the fangs are raised in anger, press it against them. I prefer this method to that of extracting the venom and inoculating it, for two reasons:

1. The poison, when extracted, is uncertain in its operation, being often composed in part of saliva, and sometimes wholly of that fluid. Fontana constantly found that the wounds made by inoculating the venom were less fatal than the bite of the viper.

3. The bite is the wound we are called upon to treat, and is placed in circumstances less favorable than a wound by inoculation.

Of the pigeons thus bitten, and treated by iodine in the manner I have described, not more than one-half die, and these are cases where it is impossible to bring the antidote in contact with the venom in time to prevent its action.

The serpent which I employed was the species called crotolophorus tergeminus, or prairie rattlesnake, and I have at the present time performed fifty experiments with the iodine on its bite.*

* For a fuller account of these experiments, the reader may consult the annexed paper on the subject.

My experiments with the woorara were conducted in the following manner:

1. In order to test the strength of the poison, six drops of a solution, containing one-fifth of a grain of woorara, was thrown under the skin of a pigeon—it died in five minutes.

I. I mixed the same quantity with twenty drops of a solution of iodine, of the same strength before given, and injected under the skin of a pigeon—no symptom of poisoning.

3. Threw the same quantity under the skin of a pigeon, and applied a cup lightly over the point, twenty drops of the solution of Iodine were injected through the same canula. No effect.

4. Covered a deep wound in the muscles of a pigeon with a paste of woorara, in a few drops of water. Bird died in five minutes.

5. Same experiment. After the application of the paste, the wound was washed with the solution of iodine. No effect produced.*

These experiments have been repeated by myself alone, and in connection with others, over one hundred times, with the same results; and I feel confident, therefore, that their accuracy cannot be called in question, and that in regard to the woorara, it is quite safe to affirm that the solution of iodine neutralizes its action.

In making this statement, I would by no means be understood as asserting that it is so in all circumstances and in all proportions. The circumstances which prevent its being so are, the introduction of the poison in such a situation that the solution cannot reach it, or so directly into the circulation that it has no time to act upon it. In most cases of wound neither of these conditions is likely to occur.

According to the experiments which I have made, for the purpose of determining the proportion of iodine required to neutralize the poison, it appears that one-third gr. of woorara in solution is perfectly neutralized by one-eighth gr. of iodine and three-eighths gr. of iodide of potasium also in solution. When the proportion of the antidote was smaller, death was prevented, but the effects were severe.

It will be seen that in regard to the woorara, no possible doubt of the neutralizing power of iodine employed in the manner indicated, can exist. Although in a purely practical point of view, this knowledge might suffice, yet it is by no

* These experiments were repeated before the society with the results here stated.—A. H. JOHNSON, Secretary.

means sufficient to satisfy the inquiring mind or the demands of science. It is necessary further to ask—

a. In what manner does the poison produce its fatal effects?

b. In what manner does iodine prevent them?

a. The inquiry as to the *modus operandi* of medicinal and toxical substances has generally been regarded as chimerical, at least, if carried further than to assert that they act by being received into the circulation, by producing a sedative effect, by increasing the irritability, etc. Now, however valuable may be the knowledge that a poison cannot act without entering the circulation, this fact in itself does not in the slightest degree enable us to understand in what manner it produces its effects. The other explanations offered are, in general, still less satisfactory.

In regard to the venom of serpents and the woorara, attempts will be made to explain their action in a greater degree. These two poisons produce death in a similar manner, and by two kinds of action.

1. By changing the form of the blood globules.

2. By a local action on the tissues and fluids of the part which extends itself by proximity.

1. As an illustration of the former method, we may take the experiment of injecting the poison into the blood vessels. If a certain quantity of either of the substances in question be thrown into the current of circulation, a period of time will elapse sufficient for it to reach the great nervous centres. At this moment the animal dies instantly; as quickly as if the medulla oblongata had been removed, and apparently in the same manner. The respiration, sensation, and voluntary motion are abolished. The action of the heart continues in some cases for a long time.

If, after death from their effects, we take blood from different parts of the body, (if it be a frog or pigeon that has been employed,) and subject its globules to a careful examination with a microscope of accurate defining power, and capable of magnifying 640 diameters, it will be found that they are altered in form, indented on the edges, the capsule appearing to be partially detached from the nucleus. Those taken from the heart and great vessels are some times least affected; and it will even happen that not one can be found in the field of the microscope exhibiting the characteristic appearance produced by the poison. On changing the field, more or less of the globules will be discovered to be affected.

The blood scraped from the muscular tissue is much more affected, and that taken from the vessels of the nervous centres most of all; although in this not more than perhaps one in a hundred of these globules can be seen to be changed in form. It is probably for this reason that this change has been overlooked by some observers. The aqueous solution of the woorara destroys most of the globules of birds as soon as it is mixed with the blood, leaving only debris and granular matter. I have found a similar change to take place in a case of snake bite. In a bird which died of it I found, fifteen hours after death, the characteristic appearance of the globules noticed after death from woorara. In mixing the venom with blood, the uncertainty of its being pure, or more or less mixed with saliva, is likely to give rise to errors. In a wound from the bite of a rattlesnake, Dr. Johnson found the blood globules destroyed. Dr. J. W. Burnett mixed the venom of the crotalus with blood drawn from the finger. The globules ceased to run and pile together, and remained without any special alteration of structure.*

According to my observations on birds and animals which die quickly of the serpent poison or the woorara, the blood is found coagulated. The destruction of fibrine and loss of coagulability is not in the living body an instantaneous effect.

There are, doubtless, changes produced upon the blood by these poisons which the microscope can not detect. Those we have noticed as resulting constantly from the woorara are quite sufficient to account for death. The altered globules arrested in the capillaries of the nervous centres, which they are incapable of traversing, destroy their vital actions, and arrest these organs in the performance of their functions. Hence the effect, as before stated is the same as annihilating or removing them. Those who are not disposed to admit so mechanical an explanation of the effects of so virulent a poison may find an analogous case in the action of olive oil or mucilage of gum, which, injected into the vessels, are almost as rapidly fatal as the woorara. They act, no doubt, by arresting the circulation in the capillaries. Mixed in an emulsion, the oil may be injected with impunity.

Woorara absorbed from the surface of the stomach is as harmless as olive oil; no doubt its mixture with some other fluid preventing its action on the blood.

In what way does iodine neutralize the action of the woo-

* Proceedings of the Boston Society of Natural History, January, 1854, p. 134.

rara? As the chemical character of the poison is unknown, it is impossible to describe the reactions which take place between it and the iodine. There is every reason to believe that iodine acts chemically upon the active principle, and neutralizes it. At the same time it preserves the red color of the blood and tissues, and prevents the tendency to gangrene which poisoned wounds generally manifest.

Iodine coagulates the solution of woorara; but neither the part coagulated nor the fluid expressed from it preserves its activity. Other substances, as the nitrate of silver, which coagulated it, do not neutralize it.

2. Of the local effect of the poison.

For a long time the most active poisons were supposed to kill from their action on the nerves.

When it came to be established, as is said, by the experiments of Blake, (the same thing had long before been shown by the experiments of Fontana,) that they enter the circulation, and that, so long as they are prevented from doing so, they produce no effect immediately, their local action, and that which they exert through the nerves, was neglected and overlooked. Many medicines and poisons have, nevertheless, the most decided local effects, independent of corroding or irritating properties. Thus, belladonna dilates the pupil, thus radicans produces numbness of the hands. Many anesthetics have a local action, etc.

In regard to the poisoning of the serpent, it is most commonly its local action which kills. The part bitten becomes discolored; rapid gangrene occurs, which spreads upon the neighboring parts. *The muscular fibres of the part are the first affected with spasmodic action.* During the time when this action is taking place the pain is excessively severe, and the impression conveyed by the nerves is like that resulting from a shock, or crushing a part of the animal body, such as coldness, syncope, etc.

This local action is the cause of that dark discoloration noticed upon members bitten, and sometimes upon other parts. It does not result from inflammation, for all the fibrine of the blood disappears during this action. It most resembles those actions called catalytic, and it is the interstitial fluid of the celular tissue first affected by it. It is a peculiarity of the woorara and serpent poison that they do not produce these effects except when inoculated. When swallowed they are absorbed without dangerous symptoms result-

ing; When thrown into the vessels they will kill quickly, without any other perceptible change than that produced on the blood.

In stating that the woowara is absorbed by the mucous surface of the stomach or intestines, and passes into the circulation, without producing fatal or dangerous effects, I am well aware that I am stating an opinion in opposition to one which has received the sanction of the highest scientific authority. Messrs. Bernard and Pelouze, in their note already referred to, advance the opinion that the reason why the woorara does not act when introduced into the stomach is, that this organ is incapable of absorbing it; and they relate some experiments going to show that the membranes of the stomach are incapable of absorbing it when in solution out of the body. This paper received a prize from the Academy of Sciences for the year 1850. Although well aware of the high authority of such a sanction, and of the skill of M. Bernard as an experimental physiologist, I have not been able, in this respect, to make the results of my experiments accord with his.

The following experiment; which I have repeated three times, with every precaution, seems to me to disprove his views:

Take two drachms of a solution containing five grains of woorara, and introduce it through a small gum-elastic tube into the stomach of a pigeon, which has been kept twenty-four hours without food or drink; kill it at the end of that time, and no food will be found in the intestinal canal. Wash the stomach and intestines with one drachm of distilled water, and inject this under the skin of another pigeon, and no effect will be produced. As the quantity introduced into the stomach was sufficient to kill twenty-five birds in five minutes, it seems impossible to avoid the conclusion that it is absorbed without injuring the pigeon, unless, indeed, we adopt the view that the poison is first digested. This view Bernard combats by experiments; but they can not be considered as conclusive under all circumstances. They only prove that it may remain for a certain length of time mixed with the gastric juice in the stomach of a dog, and possess all its activity when taken out. I admit that the gastric juice has no power of decomposing the poison—at least, that there is no evidence af its possessing such a power, and that all the facts that we are acquainted with go to disprove it.

Lest it be supposed that I claim to be the first to propose the iodine as a remedy for the bite of the rattlesnake, I beg to state here that it was first proposed by Dr. Whitmire, of Illiuois, who states that the idea was suggested to his mind by reading Guthrie's remarks on its efiects in removing engorgements. But, as recommended by Dr. Whitmire, it may have the effect of hastening the absorption of effused serum or fibrine—but that is all. Before my experiments, no one had proposed it as an antidote to the venom, or proved it to be so by experiment, or discovered a method of using it by which the effects of the venom could be counteracted. It stood on a par with the innumerable other applications which have been recommended, but of whose true value nothing positive is known.

The conclusions which I think may legitimately be deduced from the preceding facts are these:

1. The woorara, in many cases, at least, owes its activity to the venom of serpents mixed with it and thus preserved.
2. Iodine, properly used, is an antidote for it, and, mixed with it, before or after inoculation, or applied on a wound poisoned by it, is capable of preventing its dangerous effects.
3. The woorara produces its effects by changing the form of the blood globules, and by a local action, which consists in gangrene and decomposition of the tissues and fluids of the part affected.
4. The iodine acts by neutralizing the poison and preventing the tendency to gangrene.
5. The woowara may be taken into the stomach and absorbed without any ill effects.

APPENDIX.

Experimental Researches on the Venom of the Rattle-snake, showing certain of its effects not before noticed, and the means of preventing its absorption and neutralizing its effects. By DANIEL BRAINARD, M. D., Prof. of Surgery in the Medical College at Chicago, Ill. (Being an abstract of a paper presented to the Academy of Sciences, Paris, November 28, 1853.)

The experiments, the results of which are herein reported, were undertaken with the view of finding the antidote to the

venom of the crotalus; and of testing the effect of such antidote, when thrown into the tissues of the animal body where the venom has been inoculated. They have furnished results, not before noticed by other observers, which are deemed of sufficient importance to be placed first in order.

The new facts observed are—

1. A spasmodic action of the whole muscular system, but more particularly of the larynx.

2. A certain change of the blood globules.

The antidote recommended is the solution of iodine and iodide of potassium in water, applied upon the wound, and infiltrated into the tissues of the part affected.

As a means of preventing absorption, and rendering the action of the antidote more effectual, the use of cupping-glasses is recommended.

The serpent employed in these experiments was the massasagua, or prairie rattlesnake, the bite of which is deemed less dangerous than that of some other varieties. This probably does not arise from a difference in the venom, but from the snake being smaller and not sufficiently strong to make a deep wound. That such is the case, is proved by the fact, that animals and persons bitten on the cutaneous surface, rarely die of the wound; but when bitten on the mucous surface, death is generally and speedily the result. In birds, also, whose skin is tender, the bite is uniformly and quickly fatal.

My experiments were mostly made on the domestic pigeon. The rapidity with which the poison affects it, and the size and form of its blood globules, render it peculiarly adapted for this purpose. When freely bitten, the birds generally live from five minutes to two and a half hours, according to the extent of the wound and the degree of concentration of the poison. There is great difficulty in experiments with this venom, in arriving at the degree of accuracy required in all such cases. This difficulty arises from the impossibility of measuring accurately the quantity used, the strength of each specimen being liable to vary from that of others. Not only those procured from different species, but even specimens procured from the same species, and the same serpent at different periods, differ in strength. The season, the temperature, the food of the serpent, the frequency of discharge, and other causes, difficult to appreciate, render the bite of any serpent most uncertain in its effects.

In order to obviate, as far as possible, the causes of uncertainty, a serpent was not allowed to bite more than three times the same day. One of the pigeons bitten was left without treatment, and if this did not die, all experiments with that serpent on that day were left out of consideration.

Effects of the Poison.—As an example of the effects of the poison, I transcribe from the record of experiments the following case, in which, from death occurring slowly, the changes could be carefully noted.

Friday, September 1, 1853.—A pigeon, plucked under the wing, was bitten at that point by a serpent. In fifteen minutes the wound and skin, for half an inch around it, were of a blue color. Effusion of serum had raised the skin, and separated it from the tissue beneath. At this time, slight spasmodic twitching of the fasciculi of the pectoral muscle beneath the bite was observed.

In twenty-two minutes, this spasmodic action was greatly increased; and all the muscles, those of respiration especially, were affected with a tremulous movement, which passed off and recurred in paroxysms.

At this time the movements of the larynx in expanding and contracting were found to be much restrained. This organ being in full view in the pigeon when the mouth is opened, may be seen expanding during each inspiration, contracting after each expiration, and closing instantly and perfectly if it be touched, or if an effort be mad to swallow.

In this case these movements were restrained, becoming more so as the effects of the poison increased. In thirty minutes, there was difficulty of standing, the bird was gasping for breath, the mouth open, the eyes closed, the respiration spasmodic. At this time the larynx was still more contracted, and the inspirations were at times accompanied by a sibilant sound.

In forty minutes, the bird was unable to stand, the respiration more irregular, the larynx more contracted. On being handled, this bird still moved its wings, but the legs were paralyzed.

It died at sixty-one minutes, the larynx being almost entirely closed for ten minutes before death. Observations on twelve birds which died, did not in any case show symptoms essentially varying from these, except in the greater rapidity or slowness of their occurrence. In some, the spasm of the larynx was less, in others more decided. In one, the larynx

was found to dilate fully and spasmodically several times in succession, and then close perfectly so as apparently to cause the death of the bird.

The vision and the hearing were apparently unaffected until an advanced stage of the action of the venom.

The birds uniformly lose the use of their posterior extremities first, and one which recovered did not regain the power of using them for two days.

Effects noticed in the parts bitten.—Almost instantly, in rapid cases, the wound turns blue. This discoloration spreads rapidly, principally in the direction of the vessels leading to the heart. On laying open the wound, the tissues are found discolored, brown, infiltrated with serum, presenting all the appearances of a wound in approaching gangrene. If the wound be on an extremity gangrene actually occurs.

State of the blood.—When death is delayed, the blood found in the cavities of the heart and in the great vessels, is of a dark color and not coagulated. When death occurs rapidly, the blood is found coagulated, but less firmly than in the natural state.

Felix Fontana states that the venom of the viper causes the blood to coagulate in the vessels and the cavities of the heart. Much as I admire the genius and patience of Fontana, who, notwithstanding his profession, (he was an ecclesiastic), devoted himielf to researches concerning a subject so repulsive as that of experimenting with vipers, and made over six thousand experiments with them, I think it is still permitted to doubt whether in this respect he is not mistaken. The viper is as nearly allied to the crotalophorus, as this serpent is to the crotalus, and there is every reason to believe that in regard to the venom of these serpents, there exists only the difference which results from quantity and various degrees of activity. I should desire a new series of observations directed to the subject, before admitting that the venom of the viper produces effects on the blood directly the reverse of those resulting from the venom of the rattlesnake.

There is, probably, no disease or state of the system in which the fibrin of the blood is reduced to as small a quantity as in persons or animals bitten by these serpents.

As a consequence probably of this, ecchymosis occurs, and the member bitten, and sometimes the whole cutaneous surface, is covered with spots which are observed in petechiæ hemorrhagicæ. If death does not result in a few hours,

hemorrhage often takes place. It may occur from the mucous surfaces, from ulcers, slight wounds, and from the bite itself. In a case of a patient admitted into the Illinois General Hospital, on account of a bite, Dr. Johnson was unable to detect any appearance of fibrin in the blood which came from the mouth. In a dog bitten on the abdomen, a hemorrhage occurred the next day from a slight punctured wound, which was near proving fatal.

Microscopic Examination of the Blood.—I have already stated, that in extreme cases, the fibrin is entirely wanting, or at least is in so small quantity as not to be perceived by the microscope. The globules, the only other part of the blood subject to microscopic examinations, are in the pigeon more or less altered.

The venom having been extracted from a serpent and mixed with a few drops of distilled water, the mixture was added to the blood of a pigeon, under the focus of the microscope. As fast as the globules were reached by the venom they changed their form.

A pigeon which had died from the bite of a rattlesnake, was examined fifteen hours after death. There was no appearance of putrefaction.

I have examined them in numerous other instances, with the aid of my friends, Drs. H. A. Johnson and J. C. Morfit. In some of them we found, immediately after death, the blood of the great vessels much altered. It was not coagulated. Some of the globules were indented, others flattened on the side so as to be shield-shaped, others assumed a dumb-bell form. In these cases many granules, resembling the nuclei of the globules were noticed.

In the blood taken from the wound of a bird dead of the bite, Dr. Johnson found much granular matter and few globules. In that taken from the cellular tissue, at a certain distance from the bite, the globules were found thickened in their transverse, and shortened in their longest diameter. This latter change resembles that produced by a solution of sugar, and it did not result probably from the direct action of the poison, but from the globules having been macerated for some time in the effused serum.

When some hours had elapsed after the bite, before death, and the local effect was considerable, the blood taken from the vicinity generally showed an unusual number of white globules, which manifested a tendency to aggregation.

Treatment of the Bite.—There is no point of practice in surgery which is less settled than the treatment of the bite of serpents. For reasons already alluded to, the wound inflicted even by the most poisonous species, such as the cobra de capello and the crotalis, are not commonly fatal. Hence, many inert remedies and others calculated to injure, have received the credit of curing, and come into popular use. Without, at the present time, going into this subject, it may suffice to state that the efficiency of no method has heretofore been established by direct experiment, if we except the application of cupping glasses. These, made use of as soon as the bite is inflicted, and continued for some time, have the effect of retarding the action of the poison. In cases where the dose is barely sufficient to kill, delaying its action neutralizes its effect by causing it to be taken into the system in small doses.

Tracheotomy.—Bearing in mind the experiments of Dr. Marshal Hall, on dogs poisoned by strychnia, one of which was saved by tracheotomy, I no sooner observed that spasm of the larynx was one of the effects of the poison of the serpent than the operation presented itself as a possible means of relief. It was performed upon pigeons six times, in each case the effects were so far advanced as to show an undoubted tendency to a fatal termination. In no case did it prevent death, yet it must be admitted that in some of them it rendered the respiration regular and easy, and evidently prolonged life.

Treatment with the Solution of Iodine.—In experimenting with different medicinal solutions, while searching an antidote to the effects of the bite of the rattlesnake, I was led to the belief that the solution of iodine and iodide of potassium in water, exercises a much greater influence over it than any other substance, excepting some of the most powerful caustics.

I extracted the virus from the vesicle of a serpent; it stood in a drop on the surface of a spoon. Having made superficial wounds on the breasts of the two pigeons, I put the venom on them, dividing it between them as nearly as possible, equally. On one of the wounds a few drops of the solution of iodine was placed. It was of the strength of ten grains of iodine and thirty grains of iodide of potassium to the ounce of distilled water.

These birds were not closely watched, but at the end of six

hours the one treated with the iodine was quite well, and the other was dead.

I repeated this experiment with much care, and having a larger quantity of poison used four pigeons. Of the two not treated, one lived two and the other three hours, those to which the solution of iodine was applied lived, and did not appear to be affected.

It is well known that wounds thus inoculated are much less rapidly fatal than the bite itself of the serpent. I therefore applied the solution upon the breast of a pigeon where a bite had been inflicted, but it did not prevent death from taking place in the usual time.

When we consider that the fangs of this serpent are capable of penetrating the tender skin and tissues of a pigeon at least half an inch, and are so constructed as to deposit the venom there, that the part of it which is left upon the surface is without effect, that an application to the surface can but slightly penetrate the wound, it becomes obvious that an antidote applied in that manner can not reach the virus, and must of necessity remain without effect upon it. So far as the virus is concerned, it is the same as if the solution had remained in the bottle.

Under these circumstances, I thought of a method of treatment which I had made use of with success in some cases of erypsipelas and œdema, viz: infiltrating the solution into the tissues. This operation is performed as follows:

A pigeon being prepared and bitten as before directed, a cupping glass is immediately applied over the wound. A fine trochar being then passed beneath it and under the skin to the seat of the wound, the stylet is withdrawn and the solution of iodine injected through the canula into the tissues. The cup is then continued upon the part for from five to ten minutes.

Of ten pigeons treated in this manner, there died five, recovered five. Average time of death, two hours and fifty-two minutes. Of ten birds bitten, without treatment, all died, average time of death, eighty-eight minutes. Of those which died after being treated with iodine, two had the wound so situated as not to be covered by the cupping-glass, and in all of them the solution used was too weak, being of but half the strength required and of that before directed to be used.

I also tried cupping alone, and the injection of a solution of

the lact ferri, eight grains to the ounce of distilled water, and distilled water alone. Dr. Morfit, who was kind enough to assist me in my experiments, tried liquor potassa, a solution of bi-carb. soda, tr. arnica, and a solution of ammonia in water.

The cupping alone has the uniform effect of retarding the action of the poison and prolonging life. In cases where the dose of poison is barely sufficient to kill without any treatment, this of itself is capable of preventing death. This was the result obtained by Magendie, and it is not a little surprising that a means of treatment of such certain efficiency should be so seldom resorted to in practice.

On the other hand, birds treated with the aqua ammonia died quickly. Fontana found that aqua ammonia, applied to a viper bite, hastened death. Yet this is the most popular application for serpent bite.

In regard to the other fluids tried, it is sufficient to say, in general, that none of them had an effect, except those capable of producing an eschar. Soda and potassa do this, unless weak. Fontana, who tried the mineral acids, and almost every imaginable solution in his experiments with the viper, found the caustic potash alone capable of preventing its effects.

The result of my experiments taken in connection with those made by others, is, that up to the present time, no substance or solution has been found capable of preventing the fatal effects of the rattlesnake bite (unless destroying by caustic or excising the tissues of the part) excepting the solution of iodine. This, within certain limits, is capable of neutralizing it.

In order to guard against error, it should be stated that, in experimenting with birds, the separation of the skin by injecting even distilled water and applying cupping-glasses, is likely to cause the skin to fall off in scales. When the skin is not extensively separated, the solution recommended does not produce an eschar. The effects of iodine solutions on the tissues, since the publication of Velpeau's work on the subject, are so well understood that it is unnecessary to dwell further on this point.*

The effect of solutions of iodine, infiltrated into the tissues around the bite of the rattlesnake, is to prevent their discoloration, and preserve the natural texture and color of the parts. Even when it does not prevent death from occurring, it still has this effect in a great degree.

* Des Injections Medicamenteuses dans les cavités closes. Par A. A. Velpeau, Paris 1840.

The deductions which I think may legitimately be made from the foregoing facts, are—

1. The venom of the crotalus produces spasm of all the muscles—most marked in the muscles of respiration.

2. This venom produces a peculiar change of the blood globules, which consists of alteration of form and disintegration.

3. If death is delayed, it deprives the blood of its fibrin.

4. The solution of iodine and iodide of potassium, in the proportion of ten grains of the former and thirty of the latter to the ounce of distilled water, is, within certain limits, an antidote to the venom of the rattlesnake.

5. When the venom is deeply inserted, or when it has been absorbed, the antidote, to be effectual, must be infiltrated into the tissues.

6. This infiltration can be performed without causing loss of substance, or producing either eschar or suppuration.

Discovery of Viviparous Fish in Louisiana.

New Orleans, Nov. 1, 1854

"What have we here? A fish—a strange fish."—*The Tempest.*

In the month of October, 1854, through the politeness of J. C. B. Harvey, M. D., of Tchoupitoulas street, I received a small osseous fish, caught in the New Orleans canal, which connects the city with Lake Pontchartrain. This fish had been placed in a basket containing crabs, one of which wounded it slightly in the abdomen near the cloaca, thereby exposing several fœtal fish enveloped in a delicate membrane. The parent fish, which had been rudely thrust into a narrow mouthed phial of spirits, retains after immersion for two weeks, the original *rigor mortis*, and the same remark applies to the fœtuses, though they have been soaked in water; some of them have been forcibly straightened. On the 17th of October, in the presence of, and assisted by Drs. J. Hale and M. M. Dowler, I enlarged the wound and proceeded to dissect a somewhat globular mass of fœtuses bounded by the intestines before, and separated from them by an indescribably thin, diaphanous membrane; this mass was further bounded above by the spine and ribs, below and behind by the posterior inferior abdominal walls, bulging backward of the anal orifice and fin. The exterior envelope of this oblong globe consisted of a very thin, pellucid, ex-

tremely delicate and apparently laminated and flocculent membrane, like the amnion of the human embryo in the early state; it did not form a simple sack, but consisted of many duplications like the arrachnoidal reflections among the sinuosities and convolutions of the human brain, sending its prolongations as the hyaloid membrane does, through the vitreous mass of the eye.

This uterine membrane (ovisac it may not be termed) contained twenty-two fishes. It is probable that the inner surface of the uterine membrane sent forth a still more delicate membrane which enveloped each fish after the manner that the peritoneum envelops the abdominal viscera; but the parent fish, and still more its inclosed organs, were too minute to admit of full demonstration during a necessarily hurried examination; moreover, the wish not to mutilate the parent fish very much prevented a fuller dissection of the fœtal mass *in situ*.

Each fœtal fish was doubled laterally, sometimes to the right, sometimes to the left, into the globular form, the caudal fin which is inclined to the lancet shape, though blunter, overlapped one eye and side of the mouth; each fish *in situ*, and even after forcible extraction from its bed was infolded in a sack; some were drawn out united by pedicles to a common stem, somewhat like an umbilical cord.

These fœtal fishes presented a perfect example of close packing. A perceptible force was required to dislodge them from their beds. The concavity left by their extraction appeared to be lined with a smooth, black, peritoneal membrane.

The intestines which were very minute were crowded forward by the rounded mass of fœtuses which occupied the greater portion of the abdominal cavity. No ova were discovered.

The maternal fish not being much mutilated, is reserved for a more detailed technical description, which my leisure and the limits of this journal will not admit of at present.

Without attempting fully to describe even the dormal skeleton, I may observe that this tiny fish is a most symmetrical one. Its minuteness may be imagined when I state that after the removal of the inclosed fœtuses it weighed only seven grains, though not disembowelled. Thorough desiccation would probably reduce its weight about half or more. The fish exposed for two hours in the shade on a damp day,

was but slightly desiccated. It was weighed by Mr. Macpherson, apothecary, in my presence; but fearing a mistake I had it weighed a second time, with the same result. If each fœtus should weigh but one grain, the aggregate would be more than three times greater than that of the mother!

Measurements in inches: Length including the caudal fin 2 inches; greatest circumference $1\frac{3}{4}$; width vertically $\frac{1}{4}$; length of thoracic fin $\frac{1}{4}$; the caudal fin does not expand from its base or proximal end, but terminates ovally, its length $\frac{1}{4}$; the anal but little expanded $\frac{1}{4}$; the ventral is too minute for convenient measurement, being almost invisible without a lens; the dorsal, which is single, has but a slight vertical width, arising from a base $\frac{1}{4}$ of an inch, nearly opposite, though a little forward of the anal.

The teeth are advanced, nearly ranging with the lips, being very numerous, close and small, though scarcely discernible without a magnifying glass. Lips thin, the under one slightly projecting; angles of the mouth not depressed; eyes medium size; head flattened at the frontal bone; operculum much expanded. The branchiæ largely developed in three great arches, densely fringed with thick tufts, the outer and inner rows inclining to the central, having also, one, perhaps more rows behind, which are shorter.

The predominant hue of this fish is a tawny or fawn color; the opercula silvery; head metalic grey; muzzle blackish, slightly projecting.

There are six rows of rather quadrangular black spots, more particularly marked in the posterior half of the body, averaging twenty-five spots for each row. These black spots, resting on a tawny ground, leaving intervals something larger than themselves, give a picturesque appearance, forming stripes of alternating hues, the three upper of which slightly curve corresponding to the arching back; but each becomes straighter, the fourth and fifth being nearly straight; the sixth or lower row follows the abdominal curve, and disappears at the anal fin; the other five rows gradually converge without coalescing at the origin of the caudal fin. At the origin of this fin the spots are displaced out of line. By this arrangement the six rows of alternating black and tawny leave in the longitudinal direction six other continuous tawny stripes, all of which, except the two interrupted ones, lost at the anal fin, converge without mingling in the tail, all being about equal in length. The colors fade somewhat into a greyish yellow around the

thoracic fins, which are nearly central between the dorsum and abdomen, being on a level with the eyes, and about one line from the opercula.

There are six or seven rows of scales. The spinous rays of the fins are about twenty-five caudal, twelve anal, fifteen dorsal, ten thoracic.

These fœtuses are half an inch long, all alike, exactly resembling the maternal form and proportion, with the following slight exceptions, namely: Their bodies are more slender and compressed laterally; their heads are comparatively larger, and their eyes more prominent; their colors are less variegated and paler; a still greater difference appears about the middle of the abdomen, where there is attached to each fœtus a whitish, faintly-yellowish, placental-like irregularly formed mass of considerable size, having a broad base, being apparently implanted in, or blended with, the abdominal integument, possessing considerable strength, and constituting what may be termed the umbilical prominence; perhaps, it may turn out upon further examination that this mass may be not placental, but an adherent mescenteric mass of convoluted membrane.

These fœtal fishes were probably sufficiently developed at the time of the parent's death, to live independent of the mother.

It appears from the proceedings of the Academy of Natural Sciences of Philadelphia, for 1854, that Dr. Gibbons, of the Academy of Natural Sciences of San Francisco, "claims priority of description of viviparous fish," in behalf of the gold-shimmering waters of California, and, consequently, that State takes precedence over Louisiana. Agassiz, whose sounding (fishing) line has passed the living waters to the most ancient palæozoic rocks, says, in regard to the California viviparous fishes, that "a country which furnishes such novelties in our days, bids fair to enrich science with many other unexpected facts." B. Dowler, M. D.

Reviews and Notices.

A Systematic Treatise, Historical, Etiological, and Practical, on the Principal Diseases of the Interior Valley of North America, as they appear in the Caucasian, African, Indian, and Esquimaux Varieties of its population. By DANIEL DRAKE, M. D. Edited by S. HANBURY SMITH, M. D., formerly Professor of Theory and Practice of Medicine in Starling Medical College, Ohio, and FRANCIS G. SMITH, M. D., Professor of the Institutes of Medicine in the Medical Department of Pennsylvania College, Philadelphia. Second Series. Philadelphia: Lippincott, Grumbo & Co., Publishers. 1854.

It is a source of melancholy and humiliating reflection to the ambitious mind, when in the search of the hidden truths of science, to know that a day or an hour may bring the unwelcome summons, "Give up thy stewardship;" and the unrecorded facts, gleaned by years of mental and physical toil, to erect a monument in some niche of the Temple of Fame may, in a moment, be scattered in oblivion by the merciless hand of death.

The lamented author of the present volume lived to a mature age, and his physical, but not his mental organization, was on the declining slope of life, while he was collating the facts for this great last effort of his genius.

His life had ever been one of unremitting, enthusiastic, research and observation. All that was written on his favorite theme medicine and the collateral sciences), he had perused with an acute sense of the value or uselessness of the observations of others. He had garnered up, in the chambers of his retentive memory, a fund of knowledge, rare in its extent, chaste in its selection, and beautiful in its arrangement, as evinced in the nnmerous essays that, from time to time, issued from his ready pen; and in brilliant addresses to the public—lectures to his pupils—or in responses to toasts, as they passed around the "festive board." But to him the observations of others, however high the authority, were not verified truths·

He must see, hear, taste, feel, experiment, and verify for himself. So we find that, throughout his life, alike, while supported by the elastic foot of youth, or the enfeebled limb of age, arduously wending his way to the chilly north, or the sunny south, to the serene mountain tops, or the marshy glades, exposed to rigors of the one, or the more fatal miasms of the other, in order to draw from the great quarry of nature, facts, whereof to erect a lasting monument to his memory. He had read, traveled, observed, experimented, and noted, until the locks on his temples were silvered, and his form was bending under the weight of years; but the luster of his eye was not dimmed, neither was the vigor of his intellect relaxed. And thus prepared, he seated himself at his table to make the last crowning effort of his life—to produce a work which had long been the cherished hope of his heart—that would transmit his name to posterity, brilliant among the brightest of the "illustrious dead."

His first volume on the "*Principal Diseases of the Valley of North America,*" appeared in 1850, and we know of no higher compliment to a western author, than the fact, that a large portion of the edition was purchased by the profession in Europe, and in the eastern cities of our own continent. Of that volume it is not our present purpose to say much, for it has already received the unqualified approval of those most competent to judge of its merits; yet we cannot avoid the remark, that, on scanning its pages, we are struck with the originality of the conception, the novelty of the type, object, arrangement and accomplishment of the work. It has no prototype. It is not a copy, or a compilation from other works. It towers above the productions of his cotemporary authors, and it must, for a long time, stand out of the reach of imitators, for the field in which he collected his facts is vast, and he left few points unexplored. A long life of devotion to the subject would be requisite for any one author, to test his observations—to detect and correct his errors.

The first volume had gone forth to the profession. It had

stood the test of criticism—it had even been complimented in the English journals. The experiment was so far successful, and our author, invigorated by a laudible pride, from hearing the praise of "well done" often repeated from the highest sources, and echoed throughout the length and breadth of the periodical literature of the old and new world, again took up his pen to prepare the second and last volume for the press.

Month after month passed away, and Dr. Drake was seldom seen in the streets of our city, but the inquisitive visitor would find him in his little study on Fourth street, seated at a large table, which was covered with opened volumes,—journals from every section of the country, and embryotic manuscripts in every stage of development, from skeleton field notes, up to the perfected copy, ready for the hand of the compositor. Or, perhaps, he would be seen at morning's early dawn returning from a night's excursion, to some well known miasmatic marsh, where he had spent the mid-night hour, (when the spirit of disease spreads its wings on the air—when the poison is supposed to be the most active,) condensing the vapors with a new apparatus, and bottling specimens of the air for microscopic and chemical examinations at home. He was impressed with the belief that animalculæ was the cause of the various forms of febrile disease, that he arranges under the head of "*Autumnal Fever*," and he spent much of his time during the last summer of his life, in fruitless search after those little beings that yet only bear a theoretical existence.

The work progressed as rapidly towards completion, as untiring industry and a willing pen could arrange and record the facts. "But the scene is changed,"—a dark crape hangs from the door of our author's dwelling, and "mourners go about the streets,"—*Science*, like Rachel of Rama, mourns for her son, and refuses to be comforted, for he is not. "The silver cord was loosened," "the pitcher was broken at the fountain," and all that was mortal of Drake had passed from our view.

His executors found the books still open on his table, and the journals with marginal notes as he had left them; but his seat was vacant, and the pen so used to tracing the magic lines of thought, moved not, for the hand that gave it direction was there no more. The chapters that make up this, his last volume, lay in manuscript, nearly complete, though they had not yet received his final revision for the press.

We have no doubt that, if it had been the will of Providence to grant him further time, many important additions, and, perhaps, some alterations, would have been made in these chapters; but the call was imperative, and the labor of revision and correction must be performed by other hands. This labor devolved on S. Hanbury Smith, of Ohio, and Francis G. Smith, of Philadelphia, who have gained for themselves much credit in the exercise of learning and ability, which was fully commensurate with the important trust confided to them.

There is one prominent and striking feature running through and marking both volomes of this great work—the expansive range through which his thoughts traveled in searching out the cause of any particular disease that came under his observation. Not content with the symptoms of his patient, as they were presented to him at the bed-side, our author looked around into the near and far off regions of nature, for the proximate and remote causes of disease. The geographical, topographical, geological and mineralogical conditions of the locality was examined. The meteorological conditions—the calorific, electrical and hygrometic states of the atmosphere were accurately noted; and from this wide survey of all the surrounding circumstances, deductions are drawn that are almost irresitible in their force.

As an illustration of these remarks, as well as to give a fair sample of the style of the work, we will transfer to the pages of the *Lancet*, a few pages of the "speculations on the efficient cause of *Autumnal Fever*."

Section I. Meteoric Hypothesis.—It has been sug-

gested, and, indeed, is believed by some physicians, that while the three conditions recognized in the last chapter, are present wherever autumnal fever prevails, but two of them—heat and moisture—exert an influence in its production. Under the joint influence of these elements, vegetation will of course flourish and decay; but not contribute to the production of the Fever. The advocates of this opinion, of course, deny the existence of a special poison; and ascribe the disease to the direct, combined action of a hot, humid, and electrical atmosphere. The discussion of this hypothesis, necessarily involves to some extent, the discussion of the question of a special agent; for but the two opinions can be held. The Fever prevails extensively, is often epidemic, and is not contagious; it must have a cause, and if that cause be not some conjunction of the ordinary elements and sensible qualities of the atmosphere, it *must* be a poison, dissolved or suspended in it. If it should appear, then, that the Fever does not depend on the former, we may affirm that it *does* depend on the latter.

I have already shown that neither heat nor moisture, by itself, can produce the Fever, and will now proceed to state certain objections to the hypothesis that it results from their combined influence.

1. It is well known, that autumnal fever seldom appears on board of vessels which cruise on the Gulf of Mexico, although the air, at the temperature of eighty, is nearly saturated with vapor.

2. The inhabitants of Key West, who breathe a similar atmosphere, are much less afflicted with the Fever, than those on the peninsula of Florida, several degrees further north. Now, although that little island supports considerable vegetation, its swamps are filled with the waters of the Gulf in every high tide, and when strong winds prevail.

3. The sandy banks of Pensacola Bay, from its entrance, up to the town of Pensacola, suffer but little; while, at the head of the bay, where extensive alluvial deposits have been made, the Fever has been so constant and fatal as to prevent permanent settlements. Yet the temperature and moisture of both localities are the same, for they are but ten miles apart.

4. The pine woods around the Gulf of Mexico, at the distance of only two or three miles from the estuaries of the rivers, are places of retreat from the Fever, although there is a sea breeze, which tends to equalize the humid atmosphere.

5. The inhabitants of the Balize, suffer less from the Fever

than those along the rivers of the interior of Louisiana, two or three degrees further north; notwithstanding they are immersed in an atmosphere of great heat and vapor. Vegetation is as luxuriant at the Balize as above; but when it dies, it falls upon a soil impregnated with sea salt, and is often wetted by the waves of the Gulf.

6. In many parts of Kentucky and Tennessee, where the surface is dry and ridgy, and the streams narrow and tortuous, the Fever occurs upon the former, although the atmospheric humidity is small.

7. It is well known that a family may settle down in the forest, and cultivating but a small spot, remain free from fever; but when several families arrive, and an extensive breaking up of the soil takes place, it immediately begins to prevail, although the heat and moisture are not thereby increased.

8. Dr. Winter gave me the following fact. On Cedar Creek, a tributary of Cumberland River, a mill-dam had been erected about sixteen feet high. After twenty-two years, the basin above having been filled up with silt and drift, the dam was torn down, and the perpendicular face of the deposit exposed to the action of the sun and air, in the month of August. The consequence of this was, that nearly all the men who performed this labor, were seized with autumnal fever, and one of them died. There was no pond above, nor any marsh in the neighborhood; and the people generally were healthy at the time. Here there was no combined agency of heat and moisture; and hence the facts afford strong evidence of a developed aerial poison.

9. On Paint Creek, Ohio, a mill-pond was generally drained the first of June, and the rains of that month washed away silt and dead plants and animals; so that the people of the adjoining village of Washington suffered but little from the Fever; the draining was postponed till July, and no rains followed to wash out the basin. Then there immediately followed an epidemic autumnal fever, which prevailed most on the side of the village next to the pond. More than a fourth of the population suffered an attack, and nearly three per cent. of the whole number of the inhabitants perished.

10. It has frequently happened, that individuals who have lodged for a single night in certain localities, have after several days, or even weeks, been taken down by the Fever. More than this, persons, living in places where it never originates, have been seized in the spring with intermittents,

after having, in the preceding autumn, travelled where the Fever prevailed. Now, it is in no degree characteristic of heat and moisture, to produce *remote* effects. A catarrh, a pleurisy, or a rheumatism, comes on soon after exposure, or not at all. The development of the disease, at a distant time from that at which the remote cause was applied, clearly suggests that the cause was something else than a particular condition of the sensible properties of the atmosphere.

11. At our different salt works, the operatives spend their lives in a hot atmosphere saturated with vapor; and yet, on the whole, are more exempt from fever than the surrounding population.

12. Lastly, in some of our manufacturing establishments, the indoor artisans and operatives, labor in a heated atmosphere supersaturated with vapor, but remain free from autumnal fever.

These facts seem to me conclusive in their bearing against the meteoric hypothesis; except so far as certain atmospheric conditions may act as exciting causes; and we are, therefore, thrown upon the alternative,—a deleterious agent, diffused in the atmosphere; the positive existence of which seems to me to be established, by the facts which have been cited.

Now this agent may be either one, of two kinds—inorganic or organic—and both have a *prima facie* advantage over the hypothesis we have examined, in demanding the concurrence of all the conditions—heat, water, and dead vegetable and animal forms—which have been shown to be always present, wherever autumnal fever prevails; while the last is left out of account by the meteoric hypothesis. We must first inquire into the origin and nature of the inorganic poison.

Section II. Malarial Hypothesis.—1. It is unnecessary to inquire into the nature of the gases, which may be exhaled from an *earthy* surface, consisting of *nothing* but the fragments and powder of the subjacent rocks, and the different salts, or oxides, formed by their decomposition, under the influence of heat, water, and atmospheric air; for no such surface exists in our Valley. Whenever the rocky strata are thus exposed, they begin to crumble; and the pulverulent layer then immediately becomes the *nidus* of some kind of plant; thus, lichens overspread the hardest rocks, and, by their death and decay, add to the thin layer of mineral matter, an organic element, at once vegetable and animal in its composition. In this way, the spot becomes prepared for a vegetation

of a higher order, which, in turn, augments the amount of organic matter; while the rock beneath, by continued disintegration, continues to contribute new mineral substances. Thus it is, that the loose upper crust of the earth is accumulated; and the nearer we come to the actual surface, the greater, in proportion, are organic elements, or those fixed compounds which are formed by its decomposition. The soil thus formed may vary exceedingly in its depth; for where the rock has undergone rapid disintegration, or the *debris* have favored a luxuriant vegetation, the soil will be much deeper, than in opposite circumstances; but there is still another source of inequality. The soils thus formed are not fixed, and consequently are liable to be drifted about by currents of water. In ancient times, great portions of the Valley, on the north side of the Ohio River, were deeply covered with this kind of drift or diluvial: and down to the present time, every considerable rain or dissolving snow, but especially the former, washes a portion of the soil, with its superincumbent dead plants and animals, into the valleys, where they are speedily deposited.

But the soil of every habitable part of the Valley has, at all times, resting on its surface, a layer of dead and decomposing organic matter; which is abundant in proportion to its fertility, and its favorable exposure to rains and the heat of the sun—that is, to those conditions which cherish the growth of animals and vegetables.

Now, in the study of medical topography, with reference to autumnal fever, our attention has been generally directed to this layer only; and as there may be some physicians who even doubt the existence of those organized and decaying forms, in the soil beneath, supposing that they suffer decomposition when they disappear from the surface, it may be well to say something more on the subject.

The soil of which the analyses are given at *pages* 76 and 293 (*Vol. I.*), all contain organic matters, which, in one, more than equal all the inorganic substances. One of the specimens examined was silt, taken from a point ten feet below the surface, in New Orleans; and Professor Riddel found that nearly one-fourth consisted of "organized matters, such as the sporules or germs of algæ, animalcules, and their ova;" and at the depth of sixteen feet, in sinking the gas tanks of that city (*Vol. I. p.* 76), wood was found which had the texture of cheese when the spade passed through it. The length

of time required for the Mississippi to deposit the sixteen feet of superincumbent silt, must have been indefinitely long. Again: in parts of Ohio, where there is a deep diluvial or post-diluvial deposit, when wells are dug, plants unknown in the neighborhood often appear upon the earth which had been thrown out, and doubtless spring from seed which had lain buried for an immense length of time. Still further: where the upper crust is composed of sand, but produces the kinds of vegetation that can grow on such a surface, the decaying organic matter is washed into the ground by rains. Thus it is that manure or mould, that is spread on the white sands of the gardens of the navy yards at Pensacola Bay, rapidly disappears. In this way, a spot which seems destitute of dead organic matter, may have an admixture of that element below the surface. From these facts, we are warranted in reaffirming, that the soil and subsoil, of all parts of the Interior Valley, contain organic matter, in every stage of decomposition.

II. We come now to consider the dead and decaying organic matter deposited on the surface. This does not consist of vegetable forms merely as we too often suppose, but likewise of animal. An inspection with the naked eye, and still more with the microscope, reveals to us that innumberable insects, and other minute animals, live and perish among vegetables. Many tribes, moreover, find their sustenance and abode in the decaying remains of plants. Still further, the surface and superficial parts of the ground teem with small quadrupeds, reptiles, and worms; while the trunk of every fallen tree, in a certain stage of its decay, abounds in various kinds of grubs or larvæ. From the mouldering remains of trees and other vegetables, moreover, spring mushrooms, algæ, lichens, and other cryptogamic plants, which abound in nitrogen beyond the higher order of vegetables, and have, in fact, nearly the same chemical elements with animals. Finally, wherever there are pools, or swamps, or running streams, there are fishes, molluscæ, and crustaceæ, which multiply and perish, and whose bodies then float and dissolve, or sink to the bottom, or are thrown upon the shores, and mingled with the remains of land animals and plants. Thus, a vegeto-animal layer overspreads the surface of the country: and under the combined influence of water, heat, and air, when the two former are in the right proportions, is constantly undergoing decomposition, and originating new chemical compounds.

III. But the organic covering of the surface is, by no means, of the same nature in every locality. We cannot tell what kind of plants and animals, in past ages, left their remains on what now makes our subsoil; but the existing forms are subjects of observation, and, in the investigation which occupies us, should not be entirely overlooked.

1. The trees, in what are called the pine woods of the South, are chiefly resinous, and abound in hydrogen. Vegetable matters having such a composition are little disposed to pass into fermentation, but are decomposed by the slow combustion of several of their principles, by the oxygen of the atmosphere; and if the efficient cause of autumnal fever be a gas, formed during the fermentative decomposition of organic matter, we have here one explanation of the comparative absence of that fever in those woods.

2. The *Gramineæ*, *Equistacea*, and indeed, all kinds of grasses, contain in their culms and blades a great quantity of silicate of potash, and in their seed much phosphate of magnesia and lime. They undergo decomposition very slowly, and the results cannot be the same as those of plants widely differing from them in composition. In describing the medical topography of the Balize (*Vol. I. p.* 90), the extensive and luxuriant growths of the *Phragmites communis*, *Typha latifolia*, and *Scirpus lacustris* were mentioned; and I have already conjectured that their falling, when dead, into brackish water, may modify their mode of decomposition; but we may also believe that their composition exerts an influence; and that, on the hypothesis that the Fever is the offspring of the decomposition of organic matter, one cause of its milder prevalence, at the final termination of the Mississippi, than along the same river above, may be the peculiar composition of its reigning vegetation. Again: the vegetation on the grand prairies, beyond the Mississippi, is chiefly gramineous, and to this, on the same hypothesis, we might, perhaps, consistently attribute some portion of their exemption from the Fever.

3. The oak tree abounds in tanno-gallic, and is often the governing tree in considerable tracts of forest; which, I think, are less infested with the Fever than localities having a diversified, arboreous vegetation. At all events the *exuviæ* of such a forest might be expected to afford the elements for gaseous exhalations of a different sort from those of pine, or of trees not abounding in that acid.

4. The *Leguminosæ*, including all kinds of pulse, as peas, beans, and lentils, contain very little potash, silica, or the earthy phosphates, while they abound in nitrogen, and must, therefore, while under decomposition, yield gases of a very different kind from the *Gramineæ*.

5. The extensive natural family of plants called the *Cruciferæ*, embracing the radish, mustard, turnip, and cabbage, contain sulphur and nitrogenized ingredients, fitting them to give out, in decomposition, gases varying from the last.

6. Not to pursue the subject any further, the *fungi*, *boleti*, and other cryptogamic plants, which abound in dark and shaded woods have, as already indicated, a composition almost animal, and cannot, in their spontaneous decay, afford results of the same kind with plants of a widely different composition.

IV. The facts which have been cited to teach us that there is, mingled with the soil, or resting upon it, a great amount and endless variety of organic matter, both animal and vegetable, to the decomposition of which, and to the resulting new compounds, the malarialists look for the efficient cause of autumnal fever. In doing this, a special stress may, with great propriety, be laid on a few unquestionable facts.

1. That, all other circumstances being equal, the Fever prevails most where the organic matter is most abundant, in or resting on the soil.

2. That where the surface is not moist enough to favor the decomposition of organic matter, the Fever has but little prevalence.

3. That a temperature of sixty degrees of Fahrenheit, or above, is necessary to fermentation and putrefaction, and that the Fever ceases, in going north, when we reach a summer temperature below that degree.

4. That particular localities have experienced the Fever, in an epidemic form, when a surface abounding in organic matter has been newly exposed to the action of the summer sun.

5. That under long cultivation, which exhausts the organic matter of the soil, and prevents its accumulation on the surface, the Fever almost ceases to appear.

V. These facts undeniably establish a connection between a certain condition of the surface and autumnal fever; but they do not prove the existence of malaria, or a *gas*, which is the efficient cause of the Fever, and to this point we must now give attention.

1. The observed aeriform products of this decomposition are carbonic acid, carbonic oxide, carburetted hydrogen, sulphuretted hydrogen, and carbonate of ammonia. Now, there is not a single fact going to show that either of these gases can produce autumnal fever. On the contrary, as the result of experience, it may be safely affirmed, that they do not; for the effects which follow an exposure to them are of a different kind. But it can be said that, in the endless variety of new compounds, which nature may form out of the ultimate elements of plants and animals, there may be many which have not yet been detected, and that some of these is the sufficient cause of the Fever, and this cannot be denied. But we must not forget that it is an assertion without proof—a mere suggested hypothesis—a proposition to be proved.

2. It is well known to us all that there are sickly and healthy seasons at the same place, and sometimes over large portions of our Valley, while the amount of organic matter remains unchanged; and, as yet, it has not been shown that this can be explained by a reference to varying degrees of heat and moisture, though the subject has not received sufficient attention to show that it cannot.

3. The Fever occasionally appears in limited localities, from which it is in general entirely absent; the surface meanwhile remaining, to all observation, precisely the same.

4. All the known gases are either simple bodies, as hydrogen and chlorine, or binary compounds of two simple elements, as carbonic acid, ammonia, and carburetted hydrogen, and their principles are united in definite proportions, giving to each a uniform and peculiar character. If we may depend on anology, the assumed undiscovered gas, called malaria, must be of the same character; and, therefore, at all times and places be productive of the same effects. Now, although autumnal fever is a disease of intrinsic uniformity, it shows modifications which have not been explained by the assignment of modifying causes; and without such causes, its diversities constitute an objection to the existence of a single agent of an unchangeable character.

On the whole, therefore, I must repeat, that while the conditions under which our autumnal fever appears, are sufficiently clear to observation, the existenee of a special gaseous agent, resulting from them, remains to be proved."

No physician who has the first volume, will consent to be

without this; and no one who is now without the first, should fail to procure both.

For sale by Applegate & Co., Main street, below Columbia. W.

Notes of M. Bernard's Lecture on the Blood; with an Appendix. By WALTER F. ATLEE, M. D. Philadelphia: Lippincott, Gambo & Co., 1854.

A more instructive work than the above has not recently appeared. M. Bernard is at present acknowledged to be the most acurate of all the living physiological experimenters. We have had just enough of the views of M. Bernard, given to us in detached fragments, through medical journals, to create an ardent desire in the mind of every lover of progressive science, to see a full history of his various experiments and discoveries. Such a history is now before us, and, although it is not written in his own hand, nor in his native language, yet we are assured that the notes taken by Dr. Atlee are full and complete, and that the translation is rigidly accurate, so much so as not only to gain the praise of some of our most distinguished American physiologists, but the unreserved approbation of M. Bernard when they were submitted to him for inspection and correction.

We will endeavor, in this notice of the Notes, to present a brief analysis of the lecturer's mode of examining his subject, in the hope that we may inspire each of our readers with a determination to purchase and peruse the work for himself; for no work has been issued from the press (not excepting the Essays of Swan, Shleiden, Tod, Bowman, and Peget,) more replete with new and interesting physiological truths.

The importance of a knowledge of the physiological properties of the blood, seems to have been acknowledged in all ages of the history of medicine, yet for many centuries investigation did not gain much except a knowledge of its physical properties; and even the corpuscles escaped detection until Malpighi, the Italian physiologist, pronounced their existence.

M. Bernard, in speaking of the value of a chemical examination of blood says, "*The regeneration* of the blood has been very little studied, and it is very important, for it holds under its control all the acts of the organism. The chemists have occupied themselves, it is true, with nutrition, but under another point of view. They, as, for instance, Lavoisier, who compared life to a lamp, have proceeded in the examination of the phenomena, as if they occurred in an apparatus that was burning, examining what entered and what came out. This examination is indispensible, for these things must be known; but it does not enable us to judge, or but very slightly, of the *intermediary phenomena.*" From this, then, it will be observed that it has not been M. Bernard's object to investigate either the physical or chemical properties of the blood, but to arrive at the more recondite vital, "*intermediary phenomena,*" that occur while it is within the range of the various organs, (as the liver, spleen, lungs, &c.,) that are found to exert an influence over its intrinsic composition and organization. The peculiarity of his investigations, and the key to his success, may be found in the following remark: "The blood of carniverous and herbivorous animals is about the same; yet their food is different. It is the organs that effect this, and to study properly the blood it must be examined before and after each organ."

We find him commencing an examination of the blood of the portal veins, where the nutritive matters are taken in, and thence he follows it through the series of metamorphoses it undergoes, in order to maintain life. In this study he promises, not to theorize, but to advance only facts that he can demonstrate by experiments.

It would be a pleasing task for us to give our readers a brief history of those facts and experiments, but every line of the Notes is so replete with interest that, to give detached portions, we would be acting like the Oriental merchant who tore out the brightest threads from a beautiful damascus fabric to give to his wife an idea of the exquisite finish of the pattern.

The profession are indebted to Dr. Atlee, at least an extensive circulation of his Notes; for, without him, years might have passed away before we would have received the invaluable facts revealed by the experiments of M. Bernard.

For sale by H. W. Derby.

The Principal forms of the Skeleton and of the Teeth. By Professor R. Owen, F. R. S., &c., Author of "Odontography;" "Lectures on Comparative Anatomy;" "Archetype of the Skeleton;" "On the Nature of the Limbs;" "History of the British Fossil Mammalia," etc., etc. Philadelphia: Blanchard & Lee. 1854.

This is a volume of 329 pages, from the pen of the "most distinguished osteologist of the age," giving a clear and comprehensive view of comparative osteology. Commencing with the lowest orders of animals in which the skeleton is in a rudimental state, it traces its successive developments in the ascending scale, up to the perfect archteype in man.

About one hundred pages, in the last of the book, are devoted to an examination of the minute and comparative anatomy of the teeth.

The work is well illustrated with numerous wood cuts, and will be found interesting and instructive to general readers, as well as to those who are in pursuit of medical knowledge.

For sale by H. W. Derby, Main street, near 4th.

The Physician's Visiting List, Diary, and Book of Engagements, for 1855. Philadelphia: Lindsay & Blackiston, 25 south 6th street, above Chestnut.

We have received from the publishers one of those annual publications which have become indispensible to the practicing physician.

It needs no recommendation to insure a sale to those who have once used it, (and who has not?) but to those who have not had it, we would say that it is a neat little pocket companion, having a blank leaf for each week in the year, ruled and spaced, so that the business of each day in the week may be placed under its proper date.

In addition it contains an almanac; "Poisons and their Antidotes;" "Blank leaves for Memoranda;" "Address of Patients and others;" "Nurses, their residences, &c.;" "Accounts asked for—Memoranda of Wants;" "Obsteteric Engagements;" "List of things lent to patients and others;" "Books, Instruments," &c., &c.

For sale by H. W. Derby, Main street, below 4th.

Progress of Medicine.

FRANCE.

Chloroform.—Rules for its Administration.

A very lengthy and interesting discussion took place lately in the Surgical Society of Paris. Mr. Alph. Robert, Chairman of a committee on the subject, at the close of the discussion, laid before the Society the following conclusions worthy of serious consideration on the part of the conscientious Surgeon.

1. Chloroform may cause death when it is mixed in too great proportion with air.

2. It may, nevertheless, also in consequence of individual predisposition, produce serious accidents and death, even when it has been administered in feeble doses.

3. Asphyxia is not to be apprehended as a result of the employment of chloroform, unless the method of inhalation adopted be defective, or the state of the respiration be not duly attended to.

4. Chloroform predisposes to syncope, and renders the latter, when it occurs, more serious.

5. In cases in which death takes place exceptionally, it occurs by syncope. The cessation of the action of the heart is sometimes so sudden, that it constitutes a true sideration.

6. Syncope may occur at the very commencement of the operation, and in that case seems to result from the shock given to the system by the operative act itself. Syncope in this instance, may appear immediately or several hours after the operation.

7. Anæsthetics are all more or less poisons. Chloroform is the most dangerous, but it is also the most powerful. Ether is less formidable, but less energetic. A mixture of equal

volumes of ether and chloroform appears to Mr. Robert to be the best anæsthetic; it produces insensibility quickly, and seems to excite less reaction than chloroform or ether.

8. Before having recourse to the employment of chloroform, its contra-indications, whether for rejecting anæsthesia, or for modifying its application, should be sought for.

9. When chloroform is administered, it is important to watch attentively the state both of the pulse and of the respiration.

10. The danger of chloroform being in general, proportional to the concentration of its vapors, it would be useful to be able to regulate this; but as the inhalation must be made with free access to air, this regulation is impossible. It is, therefore, expedient to begin with very small proportions, which may be gradually increased according to the effects produced.

11. The action of chloroform being progressive and successive, we obtain insensibility by continuing uninterruptedly the inhalation of moderate doses, without its being necessary to increase the latter.

12. Having obtained the state called anæsthetic tolerance, we may prolong the condition for a longer or shorter time, provided we intermit the inhalation.

13. When, for any reason, the patient has been obliged to consume a large quantity of chloroform, we must guard against consecutive attacks of syncope.

In cases of severe syncope or sideration, it will be advisable to have recourse to the following means:

1. To expose the patient to a pure and cool atmosphere.
2. To give the body such a position that the head may be dependent.
3. To open the mouth and draw the tongue forward.
4. To practice artificial respiration by duly timed pressure on the thorax and abdomen.
5. Excitement of the skin by frictions, rubefacients, etc., may be subsidiarily employed.

UNITED STATES.

Chronic Inflammation of the Bladder. By A. Maguire, M. D., Parish of St. Mary, La.

"Naturam morborum, curationes ostendunt."—Hippocrates.

The following lines contain the history of a case of chronic inflammation of the bladder, which, should you think worthy,

you are at liberty to publish in the pages of your valuable journal. My attention has been forcibly drawn, for a few years, to cases of this kind, and it always was my unfortunate lot to see the patients go through the tedious and long protracted ordinary forms of treatment, with little or no relief to their sufferings, until I attempted the method which I will describe; not in the view of claiming any priority in its use, but in order to draw the attention of the profession — having no doubt but that a few trials will produce the same conviction that I now entertain of its efficiency.

Mrs. B., of Cypres Morts, in this parish, having imprudently exposed herself to cold and fatigue, a short time after confinement, was attacked with inflammation of the bladder. When I first saw her, she had then been suffering eight months without intermission. Her general appearance was that of a person reduced to the last stage of consumption. Digestion deeply impaired; diarrhœa distressing; her vesical symptoms of the most cruel nature; hardly able to retain the smallest quantity of urine, she was almost continually straining and passing a few drops of liquid, followed by a larger amount of pure blood; after which two or three strings of hard coagulated substance would make their appearance. A repetition of the same act taking place every five minutes. Her mind very much depressed; and, when she applied to me, after having subjected herself to many courses of unsuccessful treatment, it was with very little hope.

The first morning: I introduced a catheter in her bladder, and with the aid of a syringe, injected through it a solution of nitrate of silver, of fifteen grains to the ounce, letting it remain there a few seconds; straining and tenesmus considerable; relieved by a cold hip bath, and a small injection (in the rectum) with a tea-spoonful of laudanum. During those pains, a small quantity of blood, with long streaks of muco-purulent matter were discharged. After the space of six hours the pains ceased, and the urine passed only twice until next morning.

Second morning: another injection in the bladder, with twenty grains nitrate of silver, followed by the same symptoms; relieved with the bath and laudanum; quantity of blood still smaller, but muco-purulent matter passed in abundance. After the abatement of the pain, caused by the straining to discharge matter, urine retained till morning.

Third morning: third injection with twenty-five grains

nitrate of silver to the ounce of water; pains very severe, but relieved in a few hours by the cold bath and laudanum injection; during the day, very little matter was discharged, but a good deal of pale watery blood; after which, straining ceased, and the water was retained until morning. I thought then that the substitutive inflammation had been carried far enough, that the whole of the morbid lining (epithelium) had been destroyed and passed, I gave my patient a dose of opium to arrest as much as possible the secretion from the kidneys and induce rest, so as to allow cicatrization of a healthy kind to take place on the walls of the bladder.

I saw Mrs. B. three days afterward, and was struck with the change in her appearance; her eyes, from the dull, glassy look, had assumed a bright and cheerful expression. She informed me that since she had passed her water in the morning, (twenty-four hours after the last injection,) naturally and without pain, all traces of blood and matter had disappeared, and the urine had assumed its natural color; that she found it necessary to empty her bladder only three times in the day, and then passed larger quantities each time, than for the last twelve months; said she felt remarkably well, strength and appetite returning; could ride and walk without difficulty, save from weakness, and was thankful, and in good spirits. The cure has lasted now for a month, and I have all reason to believe that it will be permanent.

Few occasions, unfortunately, occur to the physician in which he can test as palpably the *modus operandi* of his medicines and exertions. The satisfaction I have derived from the case, induced me to publish it, in the hope of securing for some of my professional brethren the same success and happy feeling.—*From N. O. Med. and Surg. Journal.*

Editorial.

Dr. Isaac Hays has resigned his position as Surgeon to Wills' Hospital; an office he has filled with much credit to himself, and advantage to the institution, for more than twenty years. Dr. H. is well known to the profession as a voluminous and eloquent writer, and editor. His reputation as an opthalmic surgeon, is unsurpassed

on this continent, and we hope that the severance of his connection with that excellent charity, will not deprive the afflicted of his skill, nor the profession of the service of his pen.

We are credibly informed that Prof. Wm. Gibson, the former colleague of Physic, Chapman and Hare, in the University of Pennsylvania, is about to resign the chair of surgery that he has so long filled with distinguished ability.

There are several candidates for the prospective vacancy; among which are the names of S. D. Gross, of Louisville, and D. Brainard, of Chicago.

Whoever the fortunate man may be, he must have gigantic intellectual proportions, if the loss of Prof. Gibson is not sensibly felt by that time-honored institution.

M. Bourdel recommends for the cure of *sore nipples*, the application of a piece of lint, saturated with the tincture of benzoin—the application to be repeated until the nipple receives a coating of the benzoin.

The action of sucking does not remove the covering.

We have received the "Transactions of the Ninth Annual Meeting of the Ohio State Medical Society." It contains many valuable and interesting papers that were read before the Association, which give an *earnest* of the ability of their various authors.

Copies may be had by applying to Dr. W. W. Dawson.

We have received the following books, which we will notice in our next number: "*Manual of Human Microscopic Anatomy*," by A. Kölliker; "*Carpenter's Principles of Comparative Physiology*;" "*Harrises'. Dictionary of Medicine and Surgery*;" "Meigs *on Childbed Fever*; "Kirkbride *on Hospitals for the Insane*;" "*Transactions of the American Medical Association*," Vol. vii. 1854.

The Medical Schools of this city are about making up their classes for the regular course of lectures. So far, the number of pupils is small, though such as we have met with are certainly of a superior grade.

The Medical College of Ohio, although she has been caught in a gale, and driven rather too near the breakers for safety, is now righted again; with her masts erect and her sails filled with a steady breeze of hope, she is proudly floating onward to the harbor of success.

The Miami Medical College, with the much respected R. D. Mussey at its head, seems to be winning its way into favor; and the increased size of its class over that of its former sessions, we are informed, is highly gratifying to the gentlemen who are engaged in the new enterprise.

Miscellany.

Reports of Cases by "Reform" Doctors.

It is amusing to read some of the reports of cases in the "Reform" Medical Journals, as communicated by doctors who are engaged in "reforming" medical science. For instance, a case of "gravel cured," is reported as follows. "A lady, about 65, had an attack of typhoid fever last fall. She was predisposed to erysipelas; was blistered on the hip for pain; blister raised; mortification followed, extending half away around the limb, say twelve by fourteen inches in size. It healed up some; broke out again, and so continued for nearly one year. She came under my care. *I put her through a course of sprouts.* Rather up hill in its tendency, and, for variety, occasionally down hill. The sore is progressing, I hope to perfection. During this course, she passed one hundred gravel stones, the largest about the size of *three grains of corn*, considerable pains for days. *She did not know where they came from.* White lumps of muco purulent passed through the bowels by scores, some as large *as a hen egg.*" In the same Journal, another of these doctors reports that his wife "stuck a brass pin in her leg, on the outside, just below the knee-joint. * * * * It inflamed rose, broke and run; *all the muscles, from the knee down to the heel,* CAME OUT!" Here is another interesting case from

the same source. It appears that *the* doctor was called to a young man who had been sick six weeks, and had all that time been attended by an "Allopath." The new doctor found his patient with high fever; flesh and strength nearly gone; hip-bones protruding through the skin, "*with his bowels running off every hour or two.*" He succeeded in healing the sores about the hips and legs, and otherwise treated his patient "according to the directions laid down in your lectures on diarrhœa" (referring to the editor, who is also a professor in one of the Physo-Medical Colleges); "but his bowels still run off." In this sad dilemma, he asks what is to be done?—Another old gentleman, who has been a reader of some of the valuable works of these reformers, took it into his head that he would enter one of their colleges as a student, that he might be better able to treat his own case; but he thought, before he did so, he would *get the canker all out of his system, as he did not want to go there full of it.* So he took three or four courses of the professor's medicine, and felt so much better, that he has been able to treat himself ever since; which must be a great loss to the college—as the words, "A Disappointment," are the caption to the old gentleman's communication.—*Boston Med. and Sur. Journal.*

The Pleasures of a Water Cure.

Sitting in our office the other evening we were surprised by the entrance of a relative and former patient, who resides some four score miles away. He is suffering from incipient tuberculosis, and, at the earnest entreaties of his wife, had on the morning of his visit, put himself under hydropathic treatment. He gave his experience as follows:

"I left the cars at Clifton Springs at 10, in the morning. On arriving at the 'Water Cure,' I found a sick Irishman sitting on the steps, whom I learned to be the porter. He took my trunk up to the fourth story, sitting down occasionally to rest, and lean his head upon his hand. The stairs were covered with rope rugs, with the exception of the last pair, which was painted a cold, dismal blue. My sky-parlor proved to have three other occupants—one, a paralytic; one with a white swelling; and the third with a somewhat offensive carbuncle. Leaving this cheerful scene, I was conducted to the baths, where I had the privilege of witnessing a great variety of cutaneous diseases. All about were poor wretches, hobbling on canes and crutches, and making wry faces over

draughts of the brimstone water; all drinking from a single green glass tumbler, the fluid itself tasting like a mixture of rotten eggs and rain water, drank from an old boot, and smelled like a regiment of Scotchmen.

"My next trip was to the doctor, who said I did n't use my lungs below the nipples, which was another cheerful circumstance. The best thing of the day was the dinner, which, by the way, I went up-town to a hotel for, and which was free from the brimstone smell.

"At 2 o'clock, P. M., I ordered my baggage down, and having satisfied the reasonable charges of the doctor, (25 cts., U. S. currency,) I took the cars for Buffalo, having had just four hour's experience of the Water-Cure."—*Buffalo M. J.*

Meteorological observations for October, 1854. Made at Zanesville, by JOHN C. T. HOLSTON, A. M., M. D.

Barometer, Maximum, October 25th,	29,55	inch.
" Minimum, October 3rd,	28,49	"
" Monthly average,	29,20	"
" Monthly variation,	1,06	"
" Greatest daily variation between October 3rd and 4th,	0,58	"
Thermometer, Maximum, Oct. 16th,	83	deg.
" Minimum, Oct. 19th,	31	"
" Monthly average,	57,32	"
" Monthly variation,	52	"
" Greatest daily variation Oct. 10, bt'n 7 A. M. and M.	34	"
Amount of rain in inches,	6,097	inch.
Largest amount in one day, being more than the monthly amount of July, August, or September—October 12,	2,350	"
Daily average,	0,197	"

No prevailing disease.

Monthly Report of the Commercial Hospital, for the Month ending October, 1854

No. of Admissions	54	No. Remaining	28
" Deaths	10	" Discharges	16
" Males	44	" Females	10

	ADMITTED.	DEATHS.		ADMITTED.	DEATHS.
Remittent Fever	6	0	Pneumonia	1	0
In Articulo Mortis	6	6	Hemiphlegic	1	0
Intermittent Fever	3	0	Lymphangitis	1	0
Dysentery acute	3	0	Enciente	1	0
Typhoid Fever	3	0	Suppres' Urine	1	0
Diarrhœa acute	2	0	Rheumatism Articular	1	0
Anasarca	2	0	Laryngitis Chronic	1	0
Insanity	2	0	Concussion of Brain	1	0
Consumption	1	1	Fracture of tibia and fibula	1	0
Abscess Lumber	1	1	Gunshot wound	1	0
do Hepatic	1	1	Complicated, comminuted fracture of tibia	1	0
do Axillary	1	0	Fractures of Femur	2	0
Apoplexy	1	0	Syphilis	1	0
Apthæ complicated Harelip	1	0	Erythema	1	0
Mastrites Chronic	1	0	Burn	1	0
Mania Potu	1	1			

Of the 26 remaining at the 1st of October, 21 were discharged, and 5 still remain.

Whole Number of Deaths in Cincinnati During the Month of October.

Board of Health Report.

OFFICE OF THE BOARD OF HEALTH, Cincinnati, 1854.

Report of Deaths in Cincinnati during the month of October.

Whole number of deaths reported,.....313

CAUSE OF DEATH.	TOTAL.	CAUSE OF DEATH.	TOTAL.
Abscess	3	" Typhus	3
Angina Pectoris	1	" Typhoid	6
Apoplexy	4	General Debility and old age	6
Bronchitis	3	Hemorrhage	3
Casualty	10	Hydrocephalus	2
Cholera	4	Inflammation of the Brain	5
Cholera Infantum	7	" " Bowels	4
Consumption	33	" " Lungs	7
Convulsions	7	Intemperance	4
Colica Pictonum	2	Jaundice	3
Congestion of the Brain	5	Laryngitis	2
Croup	9	Measles	1
Delirium Tremens	3	Parturition	4
Diarrhœa, Chronic	3	Peritonitis	2
Disease of the Brain	3	Pleurisy	3
" " Lungs	6	Premature Birth	3
" " Heart	2	Scrofula	2
" " Liver	4	Small Pox	9
Dropsy	6	Suicide	1
Dysentery	14	Teething	3
Epilepsy	1	Thrush	1
Fever	7	Typhoid Pneumonia	4
Fever Congestive	2	Ulceration of the Bowels	3
" Hectic	2	Dead Born	9
" Puerperal	3	Cause not reported	66
" Remittent	6		
" Scarlet	5	Total,	313

AGE.		AGE.	
Less than one year old	34	Between 40 and 50 years old	15
Between 1 and 2 years	27	" 50 and 60 "	11
" 2 and 3 "	26	" 60 and 70 "	8
" 3 and 4 "	17	" 70 and 80 "	4
" 4 and 5 "	5	" 80 and 90 "	2
" 5 and 10 "	9	" 90 and 100 "	1
" 10 and 15 "	4	Dead Born	9
" 15 and 20 "	6	Age not reported	63
" 20 and 30 "	32		
" 30 and 40 "	40	Total,	313

NATIVITY.		NATIVITY.	
United States	116	Germany	69
England	6	France	2
Ireland	52	Italy	1
Scotland	4	Nativity not reported	58
Wales	3		
Canada	2	Total,	313

It will be seen by the above report that nine deaths occured from Small Pox, within the past month. All persons, therefore, who are not protected against the contagion of that disease, should resort to vaccination without delay.

Published by order of the Board of Health.

C. B. HUGHES, M. D., Health Officer.

WESTERN LANCET.

EDITED BY

L. M. LAWSON, M. D.,

AND

T. WOOD, M. D.,

PROFESSOR OF ANATOMY IN THE MEDICAL COLLEGE OF OHIO, AND OF ANATOMY AND PHYSIOLOGY IN THE OHIO COLLEGE OF DENTAL SURGERY.

No. 12. CINCINNATI, DECEMBER, 1854. Vol. XV.

Original Lectures, Essays and Communications.

Analysis of supposed blood-stains, found upon the clothes of Francis Dick, who was executed for the murder of James Young, September 8th, 1854. By H. G. Carey, M. D., Dayton, Ohio.

Equity and humanity have just grounds for complaint, that science is not more frequently appealed to in criminal investigations. The Court of Inquest often of questionable intelligence, selects from policemen and by-standers a jury, to decide upon the most grave questions involved in medical jurisprudence. The opinion of non-experts is sought to illucidate whatever occult points that may arise in the investigation; but the man of letters is seldom called upon. Fortune, reputation, and lives, are thus often sacrificed through ignorance; while science would readily have supplied the only link in the chain, coupling the deed with the offender.

The following *chemical analysis* confirmed the circumstantial, upon which Francis Dick was convicted of the murder of James Young. It was given in evidence by the State, that on the morning of August 13th, 1853, James Young was murdered by frequent blows inflicted upon his head, with

some heavy, blunt weapon; that Francis Dick had made threats of violence upon the deceased; that he had been seen coming from the direction of the body, about the time the murder was committed; that stains, supposed to have been produced by blood, were found upon his apparel; and so much of a confession as led to the discovery of a spade, upon which were spots resembling blood.

The garment placed in my possession by the counsel for the State, to determine the character of certain discolorations, was woolen, of coarse fabric, and blue color. At various points distributed irregularly over the skirt of the coat, were soiled spots, resembling those which had been produced by grease. Several of the discolored sections were removed from the coat, and macerated for three hours in water. At the end of this time, the fluid was of a dark-red color; and was submitted to the following re-agents, successively.*

First. A portion of it was boiled in a test tube. By this process the fluid was rendered turbid, and the color changed to a dark drab. Upon cooling, a mudy precipitate formed, leaving the supernatant liquid colorless.

Second. Nitric acid, upon being added to another portion of the above selection, destroyed its red color, coagulated the contained albumen, threw down a dark, muddy sediment, and left a light colored liquid.

Third. Tannin, when added to a portion of the fluid obtained from the coat, precipitated the red coloring matter and albumen, in the form of a light fleecy sediment, leaving a straw colored liquid.

Fourth. Upon adding corrosive sublimate to the suspected solution, the red color was immediately destroyed, the albumen was coagulated, and a muddy precipitate soon followed, leaving the surperimposed water clean.

Fifth. After the red color had been destroyed by nitric acid, the addition of sulpho-cyanide of potassium† restored a bright red color.

Sixth. The color of the suspected liquid was not altered by the addition of small quanities of ammonia.

Seventh. The red color was not discharged by the filter, nor changed by vegetable blues.

* Eleven and a half months elapsed from the time of the murder until the analysis was made.

† NOTE.—I am indebted to Prof. James Cambell, of the Central High School of Dayton, for a fine specimen of this article, and for several valuable suggestions connected with the analysis.

Eighth. The fluid decomposed in twenty-four hours, on being exposed to the atmosphere, emitted an odor of animal putrefaction.

The spade was old, and highly polished from use. The evening after the murder and before the instrument was discovered, a light shower of rain had fallen; the drops of which, by remaining in contact with the back of the spade, had produced numerous rust spots. Mingled with, and surrounded by these, were others, differing somewhat in size and shape from the former; being larger and spotted. They were also a shade darker in color, and when viewed obliquely, presented a glistening appearance.

I took a fine sponge, boiled it in soap and water, and afterwards washed it thoroughly in hot and cold water. Two sections of it were then moistened in distilled water, and one applied to the rust spot, and the other to a supposed blood spot. After three hours they were removed, and the fluid pressed from them in separate receivers. Both were filtered. The fluid which had been in contact with the supposed blood spot, lost a part of its color in passing through the filter; that in contact with the rust spot, passed through perfectly clear. I tested each for albumen, but failed to detect its presence. At a temperature of 100° Fahrenheit, I reduced these solutions by evaporation, to half a drachm each. Then, upon adding corrosive sublimate to the fluid obtained from the supposed blood spot, it immediately become turbid. A light fleecy precipitate soon formed, leaving the water clear. Corrosive sublimate, when added to the rust water, did not change it in the least.

From the result of the foregoing analysis, I gave it as my opinion, *that the discolored spots upon the coat, which I examined, had been produced by blood; and the solubility of the red colored substance upon the spade in distilled water, producing a solution furnishing tests for hæmatosin and albumen, furnish presumptive evidence of the presence of blood.*

It was alledged in the primary examination of this case, by the defendants, that the stains upon the coat and spade, had been produced by the tomato. To determine the correctness of this assumption, I submitted it to the following tests. I experimented upon the red variety.

First. I sliced and macerated a tomato for six hours in water. At the end of this time the fluid was slightly, if at all, changed. Filtering rendered it perfectly clear.

Second. I mashed another one, and expressed the juice through a strong linen cloth. This yielded a light red fluid.

Third. Filtering removed the red coloring matter of the above solution, No. 2.

Fourth. This fluid No. 2, furnished a strong acid reaction.

Fifth. The addition of ammonia to the liquid No. 2, produced a light yellow color.

Sixth. When allowed to remain quiet for several hours, the coloring matter of No. 2 was precipitated, and in a few days, decomposed and evolved an odor of vegetable firmentation.

Seventh. When portions of the expressed juice of the tomato were submitted to the action of heat, nitric acid, corrosive sublimate, and tannic acid; the results in appearance strongly resembled those produced by the action of these re-agents upon blood.

Eight. After the red color was destroyed in this fluid, No. 2, by nitric acid, it was immediately reproduced by the addition of sulphocyanide of potassium.

Experiments were also made upon the expressed juices of the cherry, currant, blackberry, and upon the infusions of log-wood, lac, madder, &c., and in all these ammonia changed their color to claret or green.

In a medico-legal aspect, the tomato assumed, in this case, a new and important relation. To my knowledge, no other analysis than that of Dr. Plummer's, of Richmond, Indiana, and designed simply to determine the character of the contained acid, had ever been made. I first submitted it to maceration, and found that the red coloring matter was insoluble in cold water. This fact alone effectually precluded the possibility of deception between the tomato and blood, especially if the suspected discoloration was in the form of a dry stain. After the red coloring matter had been obtained in suspension by mashing the tomato, it strongly resembled a dilute solution of fresh drawn blood. I boiled a portion of this fluid—expressed the juice in a test tube, which changed it to a higher brown, and filled the tube with minute floculi. These latter soon formed a muddy precipitate, leaving the water perfectly clear. Nitric acid, corrosive sublimate and tannin, produced similar results.

The presence of albumen thus demonstrated, and the action of heat, acids and corrosive salts, in destroying the red coloring matter of the tomato, impair their value for blood tests

alone. When the color of the expressed juice of the tomato had been changed by nitric acid, the red color would instantly be restored by the addition of sulphocyanide of potassium. Here the presence of iron, furnished another parallel in elementary composition, between the tomoto and blood. But the prompt action of ammonia, in changing the red of the former to a light yellow, the insolubility of its coloring principle in water—being uniformly separated by the filter—establish differences at once apparent to the man of science.

From the above analysis I was abundantly satisfied that the stains upon the coat had not been produced by tomato, as alledged; and it was equally manifest, that it had no agency in developing the spots on the spade. Citric acid is the acidifying principle of the tomato. When this comes in contact with iron or steel, citrate of iron is formed, which is readily soluble in water, producing a rich yellow color. The dirty or brown solution obtained from the spade, depended upon the presence of foreign substances, chiefly insoluble in water; that from the supposed blood-spot only retaining any part of its original color after being filtered. This I attributed to the *hæmatin*, from its solubility in water—not being separated by the filter—and being destroyed by corrosive sublimate, which also precipitated the contained albumen of the solution.

There is no direct chemical test by which the presence of blood can be determined. The compound nature of this fluid requires that its characteristic elements must be established by distinct re-agents. Some of these are equivocal, others are infallible; some are simple, and admit of easy application, others are complex, and require delicate manipulations; some are positive, others are negative, and when all these combined agencies produce their legitimate results, they demonstrate the existence of blood beyond peradventure.

Nature, the great chemist, has not furnished, in her vast labaratory, any counterfeit for that inimitable animal fluid—the blood. It is unique and unrivaled in composition. The philosopher may furnish a compound that will deceive human senses, but it will not bear the scrutiny of *science*.

Medical jurisprudence has, thus far, failed to furnish that concise and comprehensive detail of facts, upon the analysis of blood in criminal investigations, that the importance of the subject demands. Those who, from necessity or otherwise, are compelled to perform such labors, find the field comparatively uncultivated. Obstacles of the most perplexing cha-

racter, present themselves at every advancing step, which, to those possessed of the usual facilties for investigation, are often unsurmountable. This, added to insufficient remuneration, render medico-legal investigations uninviting themes.

It is impossible, from simple inspection of the color, to determine the existence of blood after a few hours. The changes which it undergoes, will be greatly influenced by the quantity, temperature, and substance with which it comes in contact. If a few drops of blood fall upon linen, or other light colored fabrics, in a few moments the fluid portions will be removed by evaporation, leaving a bright red colored stain; and, when viewed obliquely, will present a glistening appearance. In from one to six days, it will assume a dark brown color, and remain in this condition for an indefinite number of years without undergoing any further change. This will occur much earlier, and the color be more decided—being quite black in some cases—if the blood has fallen upon wood, plaster, or other soiled substances. After the color of blood stains has once undergone a change, there is no possibility of ascertaining even an approximation to the date of the stain.

When blood comes in contact with dark colored substances, the questionable value attached to color will then be wanting. The change produced will depend much upon the shade of the article receiving it. In all cases where the fibers of the cloth have been saturated, the texture will be stiffened upon drying.

The above appearances and changes are those which blood presents and undergoes, uninfluenced by the presence of foreign substances mingling with it. They may be varied infinitely, however, by circumstances incident to the occasion, producing the stains. The changes which blood undergoes, and the infinite variety of circumstances by which it is capable of being influenced upon passing from the body, are but a few of the means that render that class of testimony based upon appearances alone, the most equivocal and devoid of confidence in criminal investigations; yet they are often depended upon almost exclusively in establishing guilt or innocence.

There are two classes of discolorations which are liable to be confounded with blood-stains, viz: those that are soluble in water, and those that are not. To the latter belong red dyes, iron moulds, red paints, &c. There is but one circumstance which is calculated to deceive chemists in this latter

class, even temporarily. It is this: Blood-stains may be rendered insoluble in water, by heat, of a temperature sufficiently high to coagulate the albumen. They are there, however, dissolved by boiling caustic potash, producing a green colored solution. The tomato belongs to this class of stains, but its distinguishing differences have already been sufficiently dwelt upon.

Among the soluble stains that are most liable to be mistaken for blood, those produced by the red fruits, such as the currant, cherry, blackberry, mulberry, &c., are the most common. The petals of certain flowers, the infusions of logwood, madder, lac, brazil wood, &c., are also capable of producing red colored stains. There is not any one of these substances which has their red color destroyed by heat; they are, however, all changed to crimson or olive green by ammonia or potash.

These simple tests are, of themselves, conclusive and entitled to the utmost confidence. It is barely possible that chemical agents or mordants may be so combined with them as to prevent or counteract the action of ammonia upon their coloring principle. M. Raspail says, that, having for some years past performed numerous experiments by mixing animal albumen, or human serum, with the coloring matter of cochineal, madder and lac, and neutralizing the effects of the alkali contained in the serum, by the addition of small quantity of acetic acid, I feel justified in stating that, in no respect whatever, except in regard to color, can such mixture be confounded with blood. They may deceive those who trust in color alone, and herein is the absolute necessity of placing the investigation of such subjects in the hands of professional persons alone.

In making an analysis of any suspected stain, the first step in the process consists in dissolving it in water. So important are the evidences to be drawn from the peculiar manner in which blood unites with water that, were a suspected fluid furnished me for analysis, I would moisten a piece of clean linnen in it, and allow the scum to dry, in order to determine the action of water upon it, in forming a solution. If, then, any analysis is made of a stain, upon a manufactured fabric, sections are to be removed and suspended in a test tube, containing pure water. In from one to three hours—the length of time depending upon the age of the stain, and the texture of the cloth—minute, red, tortuous currents will

be found threading their way from the discolored cloth, and collecting in the bottom of the tube. If the fluid in the tube is permitted to remain quiet, the blood will be entirely dissolved and transferred to the bottom, without perceptibly reddening any portion through which it has passed. When the requisite amount of blood has been obtained for analitical purposes, the clear portions of the water may be decanted or drawn off by the cyphon. If any considerable amount of dirt or other soluble colored substance be present in the fabric containing the blood, the fluid, in the upper portion of the tube, will also be darkened or rendered turbid, unless in large quantities, however, these impurities will collect upon the fibers of the cloth, or slowly fall to the bottom of the tube, marring the whole column of water through which they pass. Not so, however, with blood; in virtue of its specific gravity, it is so rapidly precipitated in beautiful spiral currents, peculiar to this fluid alone.

Blood-stains upon weapons, furniture, and other like materials are subject to all the changes in color that have been detailed in connection with articles of clothing. There is this difference, the globules and red coloring matter of the blood are retained upon the surface, giving a darker tinge in the discoloration from the beginning; while upon the cloth they permeate the texture, and assume a dark color only after the lapse of time.

When a stream of blood is projected against a wall finished with white paint or plaster, the more gross particles will run off, leaving an irregular, nodulated stain, of a light arteseal color, which will not materially change as long as the article upon which it has fallen remains white. The lower end, or some portion of the stain, will usually be terminated by a drop or pure globules of blood. These will produce a dark brown nodule, and when dry, will be perceptibly elevated above the surrounding surface. Such appearances are peculiar to blood alone.

A sponge is the most convenient means by which blood-stains can be transferred from weapons, furniture, wall, floor, or other solid substances to the test tube. One of fine texture is preferable. After having thoroughly cleansed it from all impurities soluble in water, a thin section of sufficient dimensions to cover the stain, must be saturated in water and applied to the suspected blood-spot. In order to retain it in this position and expedite the dissolving process, slight pressure may

be applied, which will force the water into the margin of the sponge, and bring it more perfectly in contact with the stained surface which may be irregular. The sponge should be as thin as possible, or it may contain more water within its mashes than is desirable, or will be colored by the small amount of blood producing the stain. In from one to four hours—the length of time depending on the age of the discoloration—upon removing the sponge, the brown surface will be found of a dark, brown color, depending upon the matter which has been transferred from the weapon or other article, bearing the stain to it. The contained water, when pressed out, will present the appearances characteristic of dissolved blood-stains.

Blood, dissolved in water, undergoes changes as remarkable and as important to be observed, as when it falls upon apparel or articles of furniture. If the weather is hot, or the solution is exposed to an elevated temperature, the albumen will speedily undergo decomposition, evolving an odor peculiar to this process. With this decay of animal constituents of the blood, the intensity of the red color in the solution, will decrease *pari passu*. This change of color is first perceptible in the upper strata of the fluid, and as it progresses downwards, the lower portions will become more dense and darker. As decomposition progresses, the fluid assumes a greenish hue, and utimately becomes wholly colorless, at which time a dark, slymy sediment will be found plastered over the bottom of the vessel. The length of time that will be required to accomplish this process, depends mainly upon the temperature to which the solution has been submitted—varying from ten days to two months. As long as the above solution retains any of its coloring matter, albumen and iron may be detected by their appropriate tests. But the results of these re-agents will be less striking as the color disappears, until it is entirely gone, when chemical agents cease to produce any perceptible results, when added to the decanted fluid.

The precipitate formed by the decomposition of the blood, as a dirty, brown, slimy mass, miscible with, but not soluble in water. When briskly agitated with this latter fluid in a test tube, it breaks into small detached fragments, which speedily fall to the bottom as the fluid becomes quiet. This precipitate abounds in iron, and may be detected by adding nitric acid and sulphocyanide of potassium to it.

It is of vital importance in making an analysis of blood, to

to know the variable results that will flow from the application of the same re-agents to it in different states of dilution. When blood is pure or undiluted, some of the most valuable tests utterly fail to furnish the products which are attributed to them, by authors upon medical jurisprudence. This remark is also true in reference to others, when blood is diluted with double, thrible, and quadruple its volume of water. Nitric acid will produce a black, semi-solid mass when dropped upon undiluted blood. Heat will convert it into a soft solid, of a brown color. Corrosive sublimate and tannin, when added to blood diluted, with ten or twelve of its volume of water, will render the whole of a light brown color, and double its former consistence; but, after three or four hours. a small amount of colorless fluid will accumulate upon the surface. Tests, applied in the above condition to blood for iron, will fail. The peroxidizing agent will coagulate the large amount of albumen present, and lock up the contained iron in it. This precludes contact between it and the sulphocyanide of potassium, upon the chemical union of which depends the reproduction of the red color. It is seldom that the medical jurist will encounter these difficulties; yet they are not beyond the range of possibility.

The legitimate effects of the usual chemical re-agents will not become uniform until blood is diluted with about one hundred times its own volume of water. One drop of fresh drawn blood will impart perceptible color to forty ounces of water; and, at any point embraced between these extremes, the elements of blood can be detected with great certainty. The affinity which exists between certain re-agents and albumen is so strong, that the latter can be detected in a drop of blood, so much diluted with water that its color is no longer perceptible to the naked eye. This is true, so far as I know, only of corrosive sublimate and tannin.

In making an analysis for blood we wish to demonstrate the presence of *hæmatin*, *albumen*, and *iron*. Fibrin is so nearly allied to coagulated albumen and gluten, that is difficult to determine the difference by chemical agencies. The salines, oils, and extractive matters are found distributed profusely throughout nature, and are, therefore, equivocal and unimportant. Hæmatin is peculiar to blood alone, and when its presence is susceptible of clear demonstration, it is of paramount consideration, and more valuable as a test for blood, than all the others combind. Albumen is one of the chief

constituents of blood, and exercises a highly extended influence in the analysis. Though abounding in combination with the red coloring matter of many other animal and vegetable substances, iron, when associated with certain other evidences, becomes highly valuable as a test of the existence of blood. It is one of the most indestructible elements of this fluid; and by some, the coloring principles of blood is referred wholly to it. But, it may be removed by strong chemical re-agents that readily unite with it, leaving a dark, brown substance called *hæmatin*.

The test for this substance, *hæmatin*, is *negative*, and of the most unequivocal character. When ammonia in small quantities is added to a solution of the blood, the color is not changed; but if the former is connected or combined in large quantities, the color is darkened. The great value of this negative result is based upon the fact, that all known red coloring principles, which are soluble in water, are changed to crimson, green, or yellow, by the addition of ammonia.

Heat is one of the acknowledged tests for blood. The promptness with which a solution of the latter is changed by boiling, is due wholly to the inherent power possessed by the former to coagulate albumen. Hæmatosin, or the red coloring matter of blood, is not destroyed by heat, as is alleged by some authors upon medical jurisprudence; it is only precipitated by being entangled within the meshes of the albumen, as it is coagulated. This fact may be varified by separating the albumen from the globules, and submitting the latter to heat. I once saw a medical witness, during the course of a criminal prosecution, exhibit a vial of blood which bad been "boiled three times without destroying the red color." He did not attempt to account for the fact, but furnished it as evidence of the falibility of heat, as a test for blood. Where the albumen has been dissolved out of a coagulum, and the red coloring matter afterward suspended in water, no amount of boiling will destroy its red color. So of a blood stain, which has been submitted more than once to maceration. The first process will dissolve the albumen, saline, and some of the red coloring matter; while the subsequent ones will take up a portion of the remaining coloring matter, but the solution will not contain enough albumen to precipitate the former principles.

Nitric acid, when added to a solution of blood, immediately changes its color to a dirty brown. After a few moments a

muddy precipitate forms—the amount depending upon the quantity of albumen contained in the solution, leaving a colorless fluid superimposed. If the solution contained any considerable amount of dirt, or was undiluted, the whole will be converted into a brown mass of considerable consistence.

Corrosive sublimate and tannin are by far the most reliable and delicate tests for albumen, not in chemical combination. Either will disclose its presence in a drop of blood to the naked eye, when so much diluted that the red coloring matter is no longer visible. When added to undiluted blood they produce grumous precipitates, occupying almost the entire space of the blood itself—a thin strattum of clear fluid only collecting upon the top after several hours.

When the former, dissolved in water, is added to a solution of blood, the whole assumes a dirty, drab color. The coagulated albumen thus formed, with the red coloring matter of the blood—and any impurities which the solution may have contained—will be precipitated in the form of an impalpable, dirty sediment. The supernatant water will be clear. In proportion as the solution is diluted and made free from foreign matter, so will the quantity and color of the sediment decrease. If the solution of blood is diluted beyond the coloring point, and corrosive sublimate is added in substance, the results will be different. As it dissolves, minute tufts or fibrellæ will be seen leaving the surface of the crystals, mounted by one or more minute globules of gas—the results of chemical union, which carry the albumen, as fast as coagulated, to the surface of the water. This process continues until all the albumen contained in the solution is coagulated. In this case, the albumen collects upon the surface of the water, instead of being precipitated, and is of a white color.

Tannin, on being added to a dilute solution of blood, at first simply lightens the color. In a few moments, upon viewing the solution by a transmitted light, it will be found that the whole fluid is occupied by floculi, floating in clear water. These floculi, from their fleecy character and specific gravity, do not appear to be capable of packing very closely, and, unless the solution was very dilute, will occupy the entire space of the original fluid. If this be not the case, the floculi will then separate into two masses: one floating upon the top, and the other falling upon the bottom—leaving an intermediate space of clear fluid. These accumulated floculi

are of a light red color. When the tube containing the above specimen is briskly agitated, the coagulated albumen appears to re-dissolve; rendering the solution homogeneous, and of a pale red color. After remaining quiet, it separates into its original components. If this process—shaking—is repeated several times, portions of the floating particles will fall to the bottom after each agitation, until the whole will acccumulate as a precipitate.

If tannin be added to a solution of blood, diluted beyond the point where the coloring matter ceases to be perceptible, a green appearance is first imparted to the fluid. Soon the whole column of water in the tube becomes agitated, the motion resembling that which immediately preceeds ebullition; the ascending and descending currents being quite rapid. Minute tufts or fibrillæ soon form and settle upon the bottom, or most depending side of the test tube, if it stands obliquely. The agitation of the fluid does not cease as long as there remains any albumen in it uncoagulated.

Sulphocyanide of potassium is the most delicate test for any of the persalts of iron known to chemistry. The rationale of this test is based upon the strong chemical affinity which exists between the elements of the two compounds; and the blood-red color of the sulphocyanate of iron is which results from the chemical decomposition and reunion. Iron, as it exists in the blood, is not in a condition to be acted upon by the sulphocyanide. It must be converted into a persalt before the former will take cognisance of its presence. For this purpose the nitric acid is eminently fitted, as it destroys the red color of the blood at the same time it converts the contained iron into a *pernitrate*. When this is accomplished, the addition of sulphocyanide of potassium will instantly restore a bright red color. Great care must be used, that no trace of iron is contained in any of the vessels or reagents used in this experiment; for if the smallest conceivable amount be present, it may mislead. There is another source of fallacy connected with this experiment. It is this—When large quantities of albumen is present in the suspected liquid, as the nitric acid is added the former will be coagulated in flakes of considerable magnitude, locking up the iron within its meshes before the iron becomes affected by the acid, thus precluding the possibility of contact between the former and the test.

Of late years, the microscope has been made available in this department of medical jurisprudence, and in the hands of

those skilled in using it, furnishes evidence of great value. When blood is found in quantities too small to be detected by chemical re-agents, it is the only means through which its existence can be determined. Based upon the variable appearances which the blood globules of different species of animals present, it has been declared by some, that an expert microscopist can distinguish the globules belonging to particular classes of mammalia. These questionable results are received with great caution by courts of justice, especially when the evidence proposes to establish the presence of human blood.

The red globules which characterize the blood of mammalia, appear to possess the power of resisting the ordinary changes of puterfaction. They have been found to retain their perfect size and shape after the lapse of nine months; though the other portions of the blood had undergone decomposition.*

In preparing stains for the microscope, water must not be used, as this changes the form of the globules, and ultimately destroys them. Albumen or serum, free from globules, a solution of white sugar, of sufficient quantity to prevent endosmosis (1.03), or a solution of sulphate of soda, of similar density, should be employed for the maceration of the clot, coagulum or stained portion of stuff; and when the liquid has acquired a red tinge by contact, a drop of it may be placed between two plates of glass and examined. A portion of the stained stuff, or what is better, a small portion of dried blood, if it can be obtained, should be placed on a clean glass slide, and covered with a few drops of a solution of sugar. In from half an hour to an hour, the red-brown liquid, having a piece of microscopic glass placed over it, may be examined by a power of about two hundred and fifty diameters. Globules more or less spherical in form, and of a very faint redish color by day-light, may be seen floating in the liquid. These are blood corpuscles, and are readily recognised by their peculiar shape. When the presence of blood globules can clearly be established, there will no longer remain any doubt but that the substance was blood; but it appears to me, that it would be unsafe to rely upon microscopical evidence alone, except when the individual has been much habituated to examine blood by this instrument.

*The substance of the above remarks upon *microscopical evidence* has been condensed from Taylor's work on Medical Jurisprudence.

A deep solicitude was felt on the part of every citizen of the community in which he lived, and especially those who were connected directly or otherwise, either with his conviction or execution, to know the precise circumstances under which Francis Dick killed James Young,* and the means used in accomplishing the deed. A few moments before he stepped upon the scaffold, his priestly confessor—a gentleman who had Dick's utmost confidence—by special request, asked him concerning the weapon used in the murder: in reply to which he said, "that it was the spade, and only the spade, which he used—the one that appeared against him in court."

Proceedings of Societies.

Abstract of the Reports to the Cambridge City Medical Association, April 4, 1854. Adopted April 18, 1854. Prepared by V. Kersey, Secretary.

The winter of 1853–4, after the great rains of December, was rather dry, although remarkably cloudy. The temp. was remarkably variable, remaining below the freezing point only a few days at a time. The mean temp. for January was 31, 10 deg.; for Feb. it was 29, 88 deg.

March was remarkably cloudy, without an unusual amount of either rain or snow. It had, almost throughout, its characteristic winds, unsteady, and blowing from all quarters. The temperature was variable—the extremes of the daily means being 21, 50 deg., and 62, 75 deg. The monthly mean was 39, 23 deg. The mean height of the barometric column was 28, 980 in. The extremes of the daily means were 28, 639 in. and 29, 383 in., showing a variation of a little more than three-quarters of an inch.

In April, clouds and moderate showers were prevalent. A killing frost occurred on the 26th. High winds of variable direction were common. The extremes of temperature at 2 P. M. were 45, 25 deg. and 82 deg. The extremes of the daily means were 41, 66 deg. and 68, 17 deg. The monthly mean was 52, 50 deg. The mean height of the barometric column for the month was 28, 957 in. The extremes of the

*In his confession, he acknowledges to the killing of both the parents of James Young.

daily means were 28, 664 in. and 29, 235 in., showing a variation of a little more than half an inch.

May was showery, especially iu the fore-part. Several keen frosts occurred, one as late as the 24th. The atmosphere was more quiet and less cloudy than in the preceding month. The extremes of temperature at 2 P. M. were 52 deg. and 86 deg. The extremes of the daily means were 50, 33 deg. and 79, 50 deg.; the monthly mean 61, 63 deg. The mean height of the barometric column for the month was 29, 004 in. The extremes of the daily means were 28, 721 in. and 29, 112 in., showing a variation of a shade less than half an inch.

June was remarkably clear, the sky being overcast with clouds at only four observations during the month. The atmosphere was still at the time of more than one-third of the observations, and at no time moved more briskly than a pleasant breeze. The temperature was uniformly high, the extremes at 2 P. M. being 73 deg. and 95 deg. The extremes of the daily means were 63, 50 deg. and 82, 92 deg. The mean for the month was 75, 01 deg., and what is remarkable it is the highest monthly mean temperature of the year. The mean height of the barometric column was 29, 073 in., from which there was no deviation of more than a few hundredths. Rain fell during the month to a very moderate extent, but more freely here than in many surrounding localities. Electrical disturbances were rare and unimportant.

July fell below the usual amount of rain, yet it furnished a larger supply than the preceding month, and clouds were more prevalent. Thunder and lightning were rare. The winds were moderate, and nearly half the winds of the entire month were north-eastern. The temp. was lower, and rather less nniform than that of the preceding month. The extremes of temp. at 2 P. M. were 62 deg. and 89 deg. The extremes of the daily means were 59 deg. and 78, 17 deg.; the monthly mean was 71, 43 deg. The barometric condition was again remarkably uniform; the monthly mean was 29, 085 in., and the greatest daily mean deviation from this was a fall of two-tenths of an inch.

In August cloudy days were more numerous, but rain, thunder and lightning were still below the usual standard. Several dense fogs occurred—the atmosphere was remarkably stagnant, being noted as still at about half the observations in the month. Its principal movements were gentle oscillations

between N.E. and S.W., and winds were rarely noted from any other quarter. The extremes of temp. at 2 P. M. were 67 deg. and 93, 50 deg. The extreme daily means were 59, 66 deg. 80, 50 deg. The monthly mean was 72, 15 deg. The barometric condition of the atmosphere continued remarkably uniform, as in the two preceding months. The mean height of the mercury for the month was 29, 047 in.; the extremes of the daily means were 28, 883 in. and 29, 205 in., showing a variation of a little more than three-tenths of an inch. About the middle of this month a comet was seen descending after the sun for a number of evenings. A light frost occurred on the morning of the 28th.

In September clouds, fogs, mists, and moderate rains were common, and a few heavy showers are noted. The winds were very similar to those of the preceding month. The extremes of temperature at 2 P. M. were 55 deg. and 86, 50 deg. The extremes of the daily means were 51, 33 deg. and 76, 92 deg.; the monthly mean was 64, 51 deg. The mean height of the mercury in the barometer was 29, 077 in., and the greatest deviation of any daily mean from this, is a fall of a little more than one-third of an inch, a slightly greater variation than occurred in any one of the summer months.

October, up to the 21st, presented a fine specimen of Indian summer, mostly free from clouds and winds. After that, the weather was more variable, yet very little rain fell during the month. The extremes of temp. at 2 P. M. were 41, 50 deg. and 79, 50 deg. The extremes of the daily means were 35, 33 deg. and 59, 83 deg. The monthly mean was 46, 99 deg. The mean height of the barometric column for the month was 29,096 in. The daily mean extremes were 28, 662 in. and 29, 295 in., showing a variation of more than six-tenths of an inch.

November was remarkable for heavy frosts and dense fogs, with a few rainy days, and a light snow on the 9th. The atmosphere was generally bracing, and free from remarkable winds. The extremes of temperature at 2 P. M. were 39 deg. and 66 deg. The daily mean extremes were 31 deg. and 58, 83 deg. The monthly mean was 44, 15 deg., being less than 3 deg. below that of October. The barometric column was again remarkably uniform, and high. The mean for the month was 29, 177 in. The extremes of the daily means were 28, 960 and 29, 410 in., affording a variation of less than half an inch.

December was unusually pleasant till after the middle, being mostly clear, frosty, and without extremes of temperature. The latter part of the month was boisterous, with cold days and one considerable snow-fall. The extremes of temperature at 2 P. M. were 14 deg. and 52 deg. The extremes of the daily means were 12, 83 deg. and 42, 83 deg. The monthly mean was 29, 30 deg. The variations in the barometric column were trifling till towards the close of the month, when they were considerable. The mean height of the mercury was 29, 033 in. The extremes of the daily means were 28, 362 in. and 29, 335 in.—a variation of only a shade less than an inch; and the extremes of single observations show a variation of more than an inch.

January, 1854, was often cloudy. The winds were frequently from the S.W. Light showers of rain and snow were frequent; heavy ones rare. Thunder and lightning occurred on the 20th. The extremes of temperature at 2 P. M. were 8 deg. and 53 deg. At 7 A. M. they were 8 deg. and 51 deg. The extremes of the daily means were 3, 66 deg. and 46, 17 deg. The monthly mean was 26, 66 deg. The mean height of the barometric column was 29, 099 in. The extremes of the daily means were 28, 584 in. and 29, 628 in., a little over an inch. The extremes of single observations were 28, 468 in. and 29, 649 in., showing a variation of 1, 181 in.

February was mostly uuusually mild. It was frequently cloudy, but the amount of rain and snow was small, except on the 13th and 14th, when the rain was heavy, and accompanied with thunder and lightning. The winds were frequently southern. The extremes of temp. at 2 P. M. were 29 deg. and 58, 50 deg. At 7 A. M. they were 14 deg. and 51 deg. The extremes of the daily means were 21, 66 deg. and 50 deg. The monthly mean was 34, 02 deg. The mean height of the mercury in the barometer was 29, 059 in. The extremes of the daily means were 28, 546 in. and 29, 459 in. being less than an inch.

March was mild and rather pleasant till toward the latter part, when it was cold and boisterous. Heavy rain occurred on the 9th and 10th—light showers of rain and snow on several other days, with some thunder and lightning. The extremes of temp. at 2 P. M. were 32, 50 deg. and 73, 50 deg. The extremes of the daily means were 28, 50 deg. and 59, 50 deg. The monthly mean was 42, 61 deg. The mean height of the mercury in the barometer was 28, 989 in. The

extremes of the daily means were 28, 588 inches and 29, 349 inches.

The mean temperature of January and February, 1853, the only months of that winter noted, was 30, 49 deg. The means of the spring months of that year was 51, 12 deg.; of the summer months it was 72, 86 deg.; of the autumnal months it was 51, 88 deg.; of the past winter it was 29, 99 deg.; and for the entire year 1853 it was 51, 49 deg,

It appears from the record that most of the epidemics of the locality represented have been mild in character, and limited in prevalence, during the past year.

Inflammatory affections of the chest have been less common than during some previous years. One fatal case is reported—a male of delicate constitution, aged 60 years; died oh the seventh day of treatment, and presented, on inspection, signs of general inflammation of the pleura and both lungs, with extensive consolidatiou of the latter. The treatment of this form of disease is too well understood, and too uniform, to require comment.

A number of cases of asthma have been treated, and mostly with iodide of potassium; and the reports are favorable to the efficacy of this article as a means of cure.

Several cases of phthisis pulmonalis have been under treatment during the past year. No death has occurred, and no cure is reported. Some patients have been improved; others enabled to maintain their ground, and some have been gradually declining. Cod-liver oil, iodine, iron, quinine, opium, nutritious diet, good air, and physical exercise have been favorably mentioned.

Rheumatism and neuralgia have been moderately prevalent, and in some instances difficult to treat with success. In the former affection, blood-letting, mercury, citric acid, lemon juice, colchicum, strammonium, quinine, opium, &c., have been used, but without uniform results in favor of any one article. Neuralgia has also, in some instances, resisted almost the entire catalogue of remedies usually relied on.

Sporadic cases of erysipelas have occurred during the year. Purgatives and tonics, including the muriated tincture of iron, have been used internally, and tincture of iodine and nitrate of silver locally.

Furuncle, *carbuncle*, and *paronychia* have been unusually prevalent, indicating a clearly epidemic tendency to these forms of suppurative disease. In many instances they have been exceedingly obstinate and difficult to manage, often

leaving the parts attacked in a state of permanent deformity. Incisions, nitrate of silver, tincture of iodine, spirits of turpentine, poultice, &c., were used locally; purgatives, alleratives, and tonics, internally.

About a year since, *whooping-cough* and *measles* were quite prevalent, since which they have been rare.

Four or five years ago, *scarlet-fever* was quite common, and considerably fatal. From that time until the present winter, we have had an almost perfect respite from this formidable disease. The present appearance of the disease is principally confined to Cambridge City, and represented as follows by Dr. Johnson:

"During the present winter and spring the simple form of scarlet-fever has prevailed here, with some anomalous features, and has in a number of instances proved fatal. The throat was, in many cases, slightly or not at all affected; the eruption but slight, with a strong tendency to recede. The disease seemed disposed to spend its force on some of the viscera—not unfrequently the lungs or their appendages. In one child, about two years old, the lining membrane of the larynx was attacked, which was fatal in twenty-four hours. In another, the brain or medulla spinalis was affected, and the patient died in convulsions. During, and after, convalescence from the disease, patients were unusually liable to attacks from other affections. A child about three months old had so light an attack of scarlet-fever as to require no medical treatment; was attacked three weeks after with what appeared to be disease of the bowels, in connection with bronchitis, and died in three or four days. A little girl aged four years had a light attack of the disease, and was convalescing favorably, when she was attacked with rheumatic pains and swelling of the wrists and ankles. She took tincture of colchicum, and was promptly relieved. A very few days after, however, she got cough, laborious respiration, attended with mucous rhonchus, and very frequent pulse, with but little heat of surface. This condition was relieved by a solution of iodid of potassium and tin. colchichi. A female child six years old had the anginose form of the disease two days before medical aid was applied for; the eruption was confined to the face and extremities; there was a great degree of stupor; inflammation of the fauces; ash-colored palate and avala; difficult diglutition, hurried respiration, and pulse one hundred and forty. She had taken a patent pill, which acted freely on the bowels. It was not

known that she had any opportunity of contracting the disease by contagious influence. The treatment was a modification of what is called the West India treatment—viz.: an infusion of capsicum in vinegar and water, and chloride of sidum. Sinapisms were applied to the epigastrium, and a solution of nitrate of silver to the fauces. The recovery exceeded my expectation. No unfavorable circumstance occurred; and the patient, in a little more than a week, was convalescent. Capsicum was employed in other cases—even in the simple variety where any treatment was deemed necessary. In several cases in my practice, and so far as I was able to ascertain, in cases attended by other physicians, the disease seemed disposed to locate itself in the mucous membrane of the air passages."

The periodical fevers of every form have obviously been on the decline here for several years. The several types of this character seem to be regarded and treated as mere modifications of the same affection, and amenable to the same treatment; and quinine is regarded as the great curative agent. Other means, it is true, are useful, but this is the great indispensable, especially in the graver cases and more malignant forms of this disease. Sulphate of cinchona, a kindred article, has been substituted for quinine, in several cases, with nearly the same results.

Fever of a *typhoid* or *adynamic tendency* appears to be on the increase in the community. The disease in question is not very generally recognized as *typhoid fever*, in the strict sense; and in some of the most constant features of that disease it must be acknowledged to be very generally wanting. Dr. Johnson gives the following account of the infection, as it has occurred under his notice. "There has been, it is believed, during the past year, a greater tendency to typhoid fever, than for a number of years previous. In the winter of 1838, immediately previous to my locating here, I was informed that quite a number of cases of fever occurred in this vicinity, and more particularly in some parts of Henry county, of an adynamic character, which was called *winter fever*, but which was, no doubt, typhoid fever. Many cases proved fatal, owing in some degree, doubtless, to the medical treatment. Thompsonianism was then in the ascendent, and the constitution which was unable to resist the combined force of cayenne, lobelia, and steam, was obliged to succumb. For two other years subsequent to that time, this form of fever

prevailed to some extent, particularly in the winter season, modified, no doubt, by an increasing tendency to remittent, and intermittent fever. But since that time, say for ten or twelve years, until the last season, there have been, perhaps, no cases of fever that had any claims to be considered *typhoid*.

Young physicians, however, whose ability to diagnose very accurately may well be doubted, and who wished to cover their retreat from fatal cases, or win laurels by curing a number of cases of typhoid fever, have dogmatically so termed a number of their cases; and no doubt many cases are so termed at the present time which have no claims to be thus called. But, nevertheless, a fever has prevailed, not extensively, but in some localities, and in some families, which does present some strong lineaments of family relationship to that disease. It is admitted that a difficulty in the diagnosis frequently exists; especially among the uninitiated by practice in this disease. But still, in comparing the disease alluded to, with the remittent fever, which prevails more or less every year, we feel justified in concluding it is at least, not that disease. That it is *typhus fever*, no one pretends. And when we consider the mode in which it is ushered in, viz: the general *malaria*, which, in some instances, exists for several days, and even weeks; the early muscular prostration; the delirium and general nervous disturbance; the dryness of the tongue and soreness of the mouth; the irritable condition of the bowels, with tendency to tympanitis and borbrygma; the tendency to slough in parts on which pressure is made, we feel justified, without entering into further detail of the diagnostic symptoms, in classing it as *typhoid fever*. Two patients in the same family were attacked simultaneously—they had a little previously nursed another member of the same family, who died of the same disease. The brother was sixteen, and the sister twenty-two years old. The disease was introduced in both cases by a chill, slight heat of surface, severe headache, great irritability of the stomach, moderate thirst, pulse of the sister 114, of the brother but little accelerated, with considerable muscular prostration. Six grains of calomel, with three of dovers-powder acted with the brother quite profusely, but with the sister moderately. They took quinine, which seemed to have but little effect on their disease. The sister subsequently took ten grains of blue mass with quarter of a grain of opium, followed by siedlitz powder. This was about

the whole of the medicine she received. Was allowed the free use of cold water and cold acidulous drinks, made with citric acid or currant jelly. The brother required more medicine for restraining and regulating the bowels. Among the articles he took for that purpose, were nitrate of silver and opium, each a quarter of a grain in pills; hydrarg. cumcreta, in small portions, with a modicum of opium, turpentine and opium. They lay in a large, well-ventilated apartment, had an intelligent nurse, and were allowed milk at first, then bread and milk, and finally mush and milk. The brother required medical attendance for twenty days, the sister for ten days. The treatment of these two cases exhibits briefly my views of the treatment required in this form of disease. I concur most decidedly with Dr. Nathan Smith, that "In all cases where the disease is going on regularly, without any symptom denoting danger, and without any local festers, active interference will be likely to do more harm than good." The disease will run a different course, and any effort to cut it short, will almost inevitably do harm. But the disease may exhibit a very different phase; there may be local lesion, organic or functional, in some of the viscera of one or more of the three great cavities; and this is not unfrequently the case; then the appropriate treatment for such derangement should be adopted, modified by the disease of the general system."

The reports of other members indicate a somewhat more active and energetic treatment, and more reliance on mercurials. Drs. S. S. Boyd and S. H. Kersey, having used the latter article in every case treated, with apparent good effects. It is worthy of note, however, that their cases were mostly of graver character, involving lesion of some important organ, and leaving the bowels comparatively free from irritability. Such cases, of course, would naturally suggest a treatment unlike what is indicated in uncomplicated intestinal, or typhoid fever. The tubercular rose spots have been observed in only one case, and not clearly developed in that. Dr. J. Pennington considers all his adynamic fevers deficient in the specific characteristics of typhoid fever; that they are mostly manufactured from periodical fever, with local lesion, by neglect or mismanagement.

Diarrhea, complicated in many cases with vomiting and fever, and in some with convulsions, and cholera morbus, and cholera infantum, have all prevailed to nearly the usual

extent. In the treatment of these symptomatic affections, nothing new is proposed. Calomel, opium, ipecac, spirits of turpentine, aqua ammonia one part, with comp. spirits of lavender seven parts, a few drops to be given in sweetened water, astringents, sinapisms, &c., have all been used, and each in some particular condition, with obvious benefit.

A malignant dysentery has prevailed in some localities. The following notice of this affection is given by Dr. V. Kersey.

"Epidemic dysentery made its appearance in Milton about the middle of July, and disappeared early in November. The number of cases occurring in the village and its close vicinity, in this period of about four months, is not known, but it was undoubtedly over two hundred, and might have reached nearly three hundred cases. The deaths were carefully recorded, and the number is 26. Of these, four occurred in July, 12 in August, seven in September, and three in October. Eleven were adults and fifteen were children. Twelve were males and fourteen females. The severe cases of this disease were generally accompanied with great constitutional disturbance; were often ushered in by a distinct chill, from which the reaction, in some cases, was feeble and imperfect; in others it was vigorous, the fever was high. Early and distressing nausea, retching, and vomiting; loathing of food, furred tongue, thirst, great tenderness of abdomen, specially about the illiac fossæ; purging of mucous and blood; great frequency of pulse, often amounting to 125 in the adult; with a strong tendency to collapse and death toward the close of the first, or, at most, the second week of the disease, were among the prominent features of this experience. Two patients died early on the fourth day of illness; one remarkably healthy boy of four years old, died on the 5th day, without medical treatment; others died during the first week; some early and some late, in the second week; and in a few instances the acute stage of the disease was survived and followed by chronic dysentery, diarrhea, emaciation, ulceration, and death. But in these cases the patients were infirm, either from old age or some constitutional disorder. This epidemic was, strictly speaking, acute ileocolitis; in many cases not involving the rectum very seriously; with an unusual and remarkable tendency to early gangrene; this condition, in a number of cases, being clearly manifest some days before death. Several patients

had their sufferings greatly aggravated by intense muscular pains, with swelling, or soreness; and the gastrocnemii were the favorite seat of this kind of suffering. Several others, after the acute stage, were attacked with rheumatic inflammation of the joints, especially of the extremities, and in one case with lumbago. In a number of cases the disease was associated with an eruption, affecting the face, chest, abdomen, and extremities. It was often vascular, the vesicles containing a fluid, at first limpid, afterwards purulent; but sometimes superficial ulceration destroyed the cuticle for an inch or more in diameter, without vesiculation, and sometimes it was deeper, destroying the true skin to a limited extent, and excavating the areolar tissue beneath. This affection of the skin is not known to have occurred in any other than fatal cases of the disease, and it was wanting in more than half of these. Within a few years I have met with a painful affection of the gastrocnemii muscles, similar to that mentioned above, in several cases of acute enteretis, in one of which there was grave obstruction of the bowels. It is also noted as a prominent symptom in milk-sickness, by some medical writers. For the first time in my observation, it now occurs in acute dysentery. The liberal use of opium preceded these pains in all the cases under my notice; and the same medicine is very apt to be freely used in milk-sickness. What agency this or any other article of medicine has exercised in producing the symptom in question, or whether any, can be determined by observation alone.

Mrs. S. aged 52 years, of fair constitution, rather corpulent, died on the 14th day of illness. The body was examined nine hours *post mortem*. Emaciation had made no sensible progress; the surface of the body was livid in many places; the peritoneal surface of the large intestines was livid throughout; and about the caput coli and ascending arch verging to black; here the finger was readily passed through the coats of the bowel; the mucous membrane was quite wanting both here and in the sigmoid flexure; mostly wanting in the other portions of the colon; and extensively diseased in the rectum, though this had suffered less than any other portion of the large intestine. The mucous membrane of the vermiform appendix was found highly injected, and smeared with mucous and blood. Several feet of the ilium were marked with disease. In many places the mucous membrane was entirely destroyed; in others, highly injected

and covered with blood and mucus; the peritoneal surface had lost its natural brightness, and near the colon a cloudiness was distinctly visible. The signs of disease were abundant in the lower portion of the ilium, but diminished on ascending. The mesenteric vessels were distended with dark blood; the stomach appeared to be healthy; the liver was large and full of dark blood; the gall-bladder was distended with viscid bile; the spleen was large, and considered to be somewhat softened.

Mr. A., aged thirty years, of a good constitution, died on the 14th day of illness. Body examined eight hours after death. Emaciation considerable. The colon diseased throughout; the mucous membrane extensively abraded, especially toward the two extremes; the sigmoid flexure was greatly contracted, and the remaining coats of a dark color, (the mucous coat was wanting,) the rectum was diseased, but less so than the colon. The mucous surface, the lower portion of the illium, was abraded, injected, and smeared with mucus and blood; the mesenteric vessels were not remarkably full; the stomach was without signs of disease, pale and contracted; the liver was pale, and appeared to be healthy; the gall-bladder was full of dark bile.

Mr. L. aged 68 years, of intemperate habits, died on the 42d day of disease. Examination ten hours after death. Body greatly emaciated. The organs were all found healthy except the large intestines and a small portion of the ilium; the latter injected, the two extremities of the colon dark colored, contracted, greatly thickened, and extremely rough, with ulcerations, which extended throughout the colon and rectum. The peritoneal coat of the bowels was not perforated.

I had exclusive charge of only 63 cases of this disease, and of these three died. Two were nearly 70 years of age; outlived the acute stage of the disease, and possibly might have recovered had they been younger. The other was a vigorous man of good constitution, in the prime of life, and died on the 14th day of illness, without complication. Besides these, I saw several other fatal cases in consultation, and some of them frequently, so as to share fully the responsibility. Sporadic dysentery and some previous epidemics had, under my observation, yielded readily and with great uniformity, to a simple mode of treatment heretofore indicated. But in the epidemic, under consideration, it was far

otherwise. This was early discovered; and it will not be doubted that a number of remedies, proposed for the cure of dysentery, were applied with diligence, and what medical skill our village affords. Of these I shall notice only such as seemed, in my judgment, useful in this epidemic.

When the reaction was vigorous, *venesection*, even repeated, and *cupping*, within the iliac fossæ, appeared to be useful. In an opposite condition, where the circulation was feeble, and the surface cold and livid, strychnine was used with most decided effect, elevating the circulation, clearing the skin of its lividity, and warming the surface. The following formulæ was employed:

Strychnine, gr. j.,
Sulph. Morphine, gr. ij.
Subnitrate of Bismuth, ℈ij.,
Mucilage, Q. S.,

Mix and make into 16 pills; one to be taken every 2 or 4 hours, till reaction is induced, or till the effects of the drug are otherwise manifested. This article was also administered in solution according to a formulæ recently used in cholera, at the Commercial Hospital, Cincinnati.

Mercury, administered with a view to its constitutional effects, had probably as much power over this disease as any agent employed. Calomel or blue mass was usually given, in small portions, at intervals of about three hours, in combination with opium and ipecac, or some other medicine which was supposed to be indicated. I saw only one fatal case where the mercurial impression was made; and here, although its effects were slight and transitory, the acute form of the disease was arrested, and the patient lived six weeks, notwithstanding he was nearly 70 years old, and his constitution otherwise impaired. And further, I saw no case, where mercury was diligently employed with this view, in connexion with the appropriate juvantia, and failed to produce its specific impression., which it sometimes does, in acute inflammatory disease.

In conjunction with this mercurial course, *daily purgation* was indispensible, both to the comfort of the patient, and the ultimate result of the treatment. Castor oil alone, or with oil of turpentine and laudanum, and bitartrate of potash, were extensively used; and the choice between these articles was generally indicated by the peculiarities of the case.

The discreet use of *opium* filled an important indication in

this epidemic; but used indiscriminately, it failed most signally to sustain the reputation it has sometimes received as a curative agent in dysentery; and I was often astonished at its wonderfully trifling influence when imployed without proper indications.

Although blood-letting seemed to do good, by moderating vascular action, and preparing the system to receive impressions from other curative results; yet patients bled, even freely, have subsequently required about the same treatment as others where this agency was not employed. Slight mercurialization seemed directly useful, altering the character, and subduing the violence of the symptoms; yet under the influence of this agent, it was often observed that trifling neglect of purgatives was followed by increased fever, pain and dysenteric purging, only to be relieved by a thorough evacuation of the bowels. A reasonably comfortable night could mostly be procured, by adopting this measure in the evening, and following it by a full dose of dovers p. or a grain or two of opium; whereas an attempt to quiet the bowels, and procure comfort without such preparation, utterly failed, although four or five grains of opium were used. So that well-selected, and well-timed purgatives were clearly indispensable to the successful treatment of this epidemic.

Several infants, violently attacked with this epidemic, were cupped over the abdomen and loins, were put in a warm bath, or cold applications made over the abdomen, according as the character of the reaction indicated; and had from one-sixth to one-fourth of a grain each of calomel and ipicac, every hour for 24 or 48 hours, with the most satisfactory results.

The liberal use of rice-water was encouraged in the acute stage of the disease; on the approach of convalescence, it was supplanted by rice-milk and other farinaceous articles.

To be able to trace the causes which lead to this epidemic, would be highly desirable; but, in the present state of our knowledge, this is probably beyond our reach. It should be known that the epidemic, in its violent form, was principally confined to Milton and its close vicinity. Some neigboring localities had rather more dysentery than usually occurs, with an occasional death; while others had only a few mild sporadic cases. In Connersville, ten miles below, the disease prevailed as an epidemic. No new improvement, no excavations, no notable change, either in our village, or in the surrounding country, has been recently made, of sufficient mo-

ment to attract suspicion, as a possible cause of epidemic dysentery. Most of the houses in town are made of wood, many of them old enough to be in an advanced state of decay: and built at first with the lower floor near the ground, it is no rare thing, at this time, to find them partially resting on the rich ground beneath. The streets and alleys were never well improved; and for the last two years they have been entirely neglected. Yet, all these conditions have existed to nearly the same extent for a number of years. A small amount of rain fell during the year 1853; yet in the last few weeks of the preceding year rain was general, heavy and continued, causing a remarkable freshet in many parts of the United States, and especially in our western streams. The summer of 1853 was remarkably hot and dry. The atmosphere was rarely disturbed by a brisk wind. Gentle winds from the north-east and south-west were common—the former greatly predominating, and assuming in July the character of a settled north-east wind. Hippocrates would probably have been able to see sufficient cause for a local epidemic, in our deep vegeto-animal soil; the material, style, and age of our buildings; the great rains of the preceding year; the great heat and drought, the stagnant atmosphere and settled winds of the summer, in addition to our usual endemic tendencies; and, finally, in the coincident appearance of our plague, and the comet of last year.

The following extract, on the subject of epidemic dysentery, is taken from Dr. J. Pennington's report to the Cambridge City Medical Society. The disease made its appearance in an epidemic form, about the 10th of July last. The first subject of it was Mr. C——, who was residing at Connersville at the time of his attack, where the disease was existing, and where several deaths had occurred from it. He came home to his father's (in our village) sick. Dr. J. M. Bell was called to wait on him; after being treated several days I was requested to see him in consultation; found him suffering severely from many of the most formidable symptoms of dysentery, not necessary to mention. Treatment consisted mainly in the use of calomel in purgative doses, castor oil, turpentine, rhei, bitart. potash, morphine and ipecac, opium, tannin, catechu and quinine, with mucilagenous drinks, and large mucilagenous injections, frequently repeated. He was also freely blistered over the stomach and abdomen. Dr. V. Kersey saw this case several times during the last week of his illness.

From all I could observe of the effects of remedies used, I must say they availed but little: for Mr. C. continued to grow worse from day to day until death occurred, which took place on the second week of his illness.

The Second case was that of Miss J. A. C——, Oct. 19th, cousin to the above, who assisted to nurse him. She was attacked on the 18th of July; had repeated chilliness the onset, aching of the limbs, pain of the head, nausea and occasional vomiting. The first dejections were large, light colored and fluid. This continued 30 or 40 hours at short intervals, with little pain, before they changed to those of a more decided dysenteric character. She was treated ten days by cal. ipecac, opium, mild astringents and quinine; recovered.

A few days from this time, two of Mr. J. C.'s children were attacked, the oldest five years old, the other younger; they were attended by an *Eclectic*. The younger child died in eight or ten days; the other recovered after a protracted illness, under the attention of regular practitioners. On the 24th, Mrs. C., the mother of these children, was attacked; symptoms at the onset very much like those described in the second case. This lady seldom enjoyed good health long at a time, was of feeble constitution, and very subject to the usual endemic diseases of the country. She was treated by myself, Dr. Kersey and Johnson, and had all the usual remedies common in this form of disease; yet ultimately died, after an illness of about three weeks duration. The last four cases named were the first that followed after Mr. C., of Connersville; the last, the wife of his brother, also assisted to nurse him, with her children about her. Many of our citizens knowing these facts, contend that the affection under consideration was propagated through Mr. C. from Connersville, otherwise our town would not have been visited by the epidemic. Let this conjecture be true or not, we had no cases of dysentery until after a week or ten days of his illness had transpired. I am not prepared to say that the next succeeding cases bore a similar connection with these above named, as the disease soon became generally distributed about town; so that no evident traces referring to the cause of the malady, could be followed, other than a miasmatic or atmospheric influence. The whole number of cases that occurred from first to last in our village, is not accurately known, but could not have been less than from two to three hundred.

I believe it is generally admitted that those who are the

first subjects of any form of epidemic disease, are the most liable to be destroyed by it. If this be true, on what premises can it be accounted for? Is it because the virulence of the epidemic is more potent at the onset? or is it owing to idiosyncrasy, or some favorvable condition of the system accidentally existing at the time the disease first appears? I am not inclined to believe that the two latter causes have more to do in providing a habitation for the enemy than the former; and that in consequence of such favorable condition they readily become the subjects of its malignancy.

My own convictions are, that the treatment pursued by most of us at the onset of the disease, was not sufficiently energetic to meet the exigency of the cases; and not until after several fatal cases had occurred, was this paliating or anodyne mode of treatment changed for a more decided antiphlogistic one, which proved clearly the advantages of this latter over the former, in the recovery of more patients.

And in this opinion I am borne out by several postmortem examinations, which exhibit unmistakeable evidence of inflammation of the mucous coat of the bowels, extending to the muscular and peritoneal coats, with strong tendency to gangrene; not confined to the rectum or lower bowels, as most authors would have us believe, but extending even to the small bowels; yet more extensive in the colon. The term "illeo-colitus" conveys a more explicit idea of the local lesion, or seat of inflammatory action than any language I have at command.

It must be admitted that dysentery, as it prevailed here the past season, was highly inflammatory in its character, and that to treat it successfully, this inflammation must be reduced or arrested in an early stage of the disease; otherwise, patients will inevitably be lost from excessive inflammatory action.

Many of the fatal cases terminated within the first week or ten days—some earlier, a few later—depending in my opinion, upon the amount of inflammation present.

Dr. S. H. Kersey reports a case of extensive congenital fissure of palate; in which the operation, though difficult, was entirely successful.

Also, the ligation of two arteries in the foot, to arrest hemorrhage, consequent upon an extensive incised wound.

The ligation of the anterior tibial artery at the junction of the middle and lower thirds of the leg for secondary hemor-

rhage, occurring on the 24st day of a gunshot wound, in which more than forty shot were deposited in the ankle, and mostly between the tibia and fibula. The case terminated favorably.

Also, a case of strangulated femoral hernia, in a male aged 65 years. This patient had been occasionally subject to turns of suffering from this source for more than forty years, but was never induced to call medical aid till about seventy hours before the operation was performed. The usual means, including the liberal use of acetate of lead and morphine, were applied with a view to relief, but without success. The obstruction of the bowels was perfect, and the vomiting stercoraceous. The main body of the tumor was found to consist of omentum; and it was united, in many places, by firm adhesion to the sack. The ligaments of Gimbernat and Poupart both required to be notched, and firm adhesions broken up, before the tumor could be reduced. The operation was performed without anesthesia, and was well borne by the patient, insomuch that on leaving the table he had a good circulation of less than 100, and within an hour expressed himself as comfortable. His bowels were readily and freely moved. But, in about twelve hours, inflammatory symptoms appeared, which were combatted with promptness and energy by the usual means, including repeated venesection, and the patient died 88 hours after the operation with signs of gangrene. Ten hours after death, the body was examined. The abdomen was tympanitic; the wound showed signs of an attempt at adhesive union, but the lymph was now decomposed. The principal body of the tumor was composed of omentum, gathered from the right iliac region, condensed and thickened. The ilium, about thirty inches above the colon, had been involved in the stricture; to the extent ef about three inches on the floating margin, an inch on the mesenteric, and a corresponding portion of mesentery. These parts were gangrenous, the peritoneum tender, and in small patches, where the pressure of the arch had been greatest, it was slightly sphacelated. The mark of the stricture was singularly obvious, the intestine still having a puckered appearance where the pressure was applied. For several inches above this, the bowel was extremely vascular. The peritoneum surrounding the wound was greenish, showing approaching gangrene. The operation, at an earlier period, might have been successful, as it is probable that

the vitality of the included bowel was destroyed before the stricture was removed."

Other members have reported a number of surgical cases, but of less moment.

The results of 227 pregnancies are reported as follows: Ten terminated in early abortion, fourteen in premature labor, and 203 at full time. Of 214 children, whose sexes were noted, 105 were males and 109 females. The vertex presented 177 times, the breech nine times, and the feet twice, in 188 births. In 177 labors, the vertex corresponded to the one or the other acetabulum 172 times; to one or the other sacro-iliac junction five times, and the latter cases terminated favorably, without interference. Of 208 births at maturity, the offspring was living, 193 times, and still-born ten times. In the cases of premature labor, no infant lived beyond a few hours, though several were born at the 7th month or later in gestation. In the whole numher of cases, dangerous hemorrhage occurred nine times. Acetate of lead and opium, and cold applications to the abdomen, were used in all the cases; rude friction, or grasping the uterine tumor through the abdominal parietes was often used; ergot was given in a few instances, and the hand was introduced into the uterine cavity, in one case, before contraction could be induced. Turning was also successfully resorted to in one case, where alarming hemorrhage preceded delivery. Partial *placenta previa* occurred in two cases, giving origin to slight occasional hemorrhage, during the latter weeks of pregnancy; but the cases finally terminated favorably without much interference. Prolapsus of the cord occurred in one case, but this was returned to the fundes and retained there till the labor was successfully terminated by means suggested by Prof. Meigs. The forceps were used in two cases; in one of these, the issue was, in all respects favorable; in the other the infant was still. Rupture of the uterus occurred in one case, and the infant escaped from the uterine into the peritoneal cavity. The mother died suddenly; the infant had perished from hydrocephalus. The ruptured organ was preserved in alcohol and exhibited to the Society. The rupture occupied the seat of extensive elevation, probably malignant in character. Craniotomy was resorted to in one case, in consequence of contracted pelvis. Convulsions occurred in one case, but terminated favorably. Twins occurred five times in the whole number of cases. Of 52 cases, where the period elapsing

between the last menstruation and the labor was confidently stated, the mean time is 280 3-4 days; the extremes 265 days, and 310 days, and labor is reported as occurring on a large proportion of the intervening days. Three cases are reported in which females failed to menstruate between their last two pregnancies. In more than one case, where the cycle of menstruation is observed with great regularity, a difference of several days has occurred in the duration of different pregnancies; so that the theory which confines labor to a menstrual period, and measures pregnancy by the same multiple of the menstrual cycle, receives no countenance from our observations. Respecting the causes which influenced six, we remain, as might be expected, totally in the dark. Even the limited number of facts at our command seem to present instances out of harmony with the several theories that have been proposed on this subject. Our cases show great diversity in the agents of the parents, without any constant, or indeed, sensible effect on the sex of the offspring. And that all the conceptions of either sex occur during menstruation, seems too preposterous to be refuted.

Correspondence.

Messrs. Editors:

In the name of religion, medical philosophy, and common sense, I must protest against the cabalistic mysticism of your correspondent "H.," in speaking of your reviews of types of mankind. If the *real* meaning of the Scriptures be so hidden and so misapprehended, as "H." would have us to believe, then old mother Rome did right in keeping the sacred Word from the illiterate vulgar. If men be justly chargeable with dishonesty, for using terms of *double* meaning in their intercourse with their *equals*, what should be said if the Supreme (blasphemous idea!) had used words of an *infinitude* of meaning? No! Our God is but one God—*absolute truth*—whose word has but one meaning. That word *He* has called the *sincere milk* of the word; well, in milk the cream is all on the top, easily got at. All that is wanting is, for us to form *a true* approximation, however distant, of the real character of Jehovah and ourselves. *He* is absolute wisdom,

consequently when he has given us five senses for the observation of facts, his intention was that man should be an observer; as, by giving us reason, capable of collecting those facts, and thence drawing generalizations, and thus becoming by degrees acquainted with native laws, He undoubtedly intended that this should be done; so it would be unwise—unworthy the most High, to counteract His own ordinance, by superseding sense and reason, by a *revelation* of physical facts, he has revealed *none*—they must *all* be discovered by observation and induction. His revelations are concerning Himself, whose mode of existence without that enlightening of our minds, would be absolutely unintelligible, indeed would hardly, by the depraved human mind, be recognized at all. But as God, in his intercourse with men, had to make use of human agency to propound his oracles to human minds, it became necessary for him, in his great love and condescension for his children, to (as it were) level Himself to their capacity and speak *after the manner* of men. To me Gen. i. teaches: The eternal existence of the *One* indivisible, self-existing, independent *Creator*. 2. A beginning. 3. The origin of Adam, a generic term given to man—by the direct agency of God elect, and those sublime *absolute* truths, are couched in expressions of *relative truth* in physical science—just as he speaks of "the sun rising and setting,"—because, as the senses are constitued, *so* it appears. He also lets Moses give an account of the *successive acts* of formation as they *truly* presented themselves to him *relative* to the activity of his senses and powers of induction. God revealing *Himself absolute truth* to Moses, and superintending Moses while couching that *absolute truth* inwards of *relative truth* to men, who otherwise would undoubtedly have rejected all. Let us *then* as diligently observe our reason, and without fear, follow where they lead. God's word will stand for *ever* sure, but *all* that is written in the Bible is *not* God's word, but often a record of men's word, certified by God as having been truly recorded.

Yours, JOHN G. HOLSTON.

Editors of the Western Lancet:

In a practice of near twenty years I have invariably been in the habit of using as a "prophylactic" in Pertussis (or Whooping Cough) with children "vaccination," where the patient had not been previously vaccinated; but never until the

present season have I re-vaccinated for the same purpose. But, having some patients not robust, and for whom I entertained serious fears as to the result without interference, I re-vaccinated in some five or six cases, and with the happiest results in each case, and the only effect I could perceive was a slight local inflammatory action for a few days, and a perfect abatement of all symptoms of pertussis. This remedy, so simple, and, as I have found it, so prompt and perfect in its action, I consider well worthy of a more extended introduction among the profession, and hope that it may be the means of ameliorating this often distressing malady among children. JNO. A. SKINNER, M. D.

SPRINGFIELD, Nov. 22d, 1854.

Reviews and Notices.

Elements of Chemistry for the use of Colleges and Schools. By M. V. REGNAULT. Translated by T. FORREST BETTON, M. D., &c., in 2 vols., 2d edition. Clark & Hesser, Philadelphia.

Course of Six Lectures on the Non-Metallic Elements. By Prof. FARADAY, arranged by J. SCOFFERN, M. D. 1 vol., 300 pp. Lippincott, Grambo & Co., Phila. Truman & Spofford, Main street, between 3rd and 4th, Cincinnati.

Text Books on Chemistry, one would suppose, were in great demand, if he might judge by the number that are presented to the student with each succeeding course of lectures that is delivered. Another evidence of the abundance of this kind of literature, or, perhaps, of the many books of this class that are excellent, may be found in the long lists that are presented by certain most learned professors, who increase the difficulty of selection for their students by parading in college circulars a formidable array of titles, among which they may at random clutch a "Text Book."

In the days of our *apprenticeship*, long time ago, such a selection was no difficult affair—the number of books was so limited, and the information they contained was so scanty, that it is almost a marvel that any one who followed those slender guides, and who has since been obliged to re-learn

and then to unlearn, and, finally, to learn over again, should have been able to overcome the difficulties which presented themselves; and, at least, by dint of persevering industry and dogged determination, to have continued, or to have become eventually chemists. And yet, it cannot be denied, there are chemists in these days—men, too, who have shed the most clear and brilliant light upon the beautiful science they have espoused. Have we not our Liebigs, Faradays, Mitchells, Sillimans, Drapers and Hares? aye, and many more in embryo, or, rather, in process of crystallization!

But the evidence is before us—in the titles at the head of this article. Mr. V. Regnault is well known as a chemist in Paris, and has produced a copious book filled with the most valuable details, and illustrated by nearly seven hundred woodcuts, which, altogether, enable the tyro in the study to follow, in his own laboratory, the various processes which are described. This work has been translated by one of the prominent physicians of Philadelphia, Dr. Betton, who has gained an enviable reputation in other walks of his profession, a proof that devotion to "alchemy," as this department is deridingly called, does not necessarily cast a blight upon professional prospects, nor render the devotee less competent to win the proudest laurels of medicine or surgery. *Toute au contraire*, quoth the chemist, and so say I, in the teeth of the popular dictum.

Regnault's Elements moreover, comes before the people of the United States, not only in their own proper speech and language, but it is also supported in its debut, and most lovingly introduced by two chemists who stand foremost among the analysts of our own country, and who are not without a reputation in the old world, where at least one of them was a favorite student of the great Berzelius. The editors of these volumes are, James C. Booth, *melter and refiner, United States mint*, Philadelphia, and Wm. L. Faber, *metallurgist and refining engineer.*

In addition to the many excellencies of this book, and the

thorough manner in which every subject is handled, there is a most useful appendix, or rather prefix. A comparative table of French and English measures, which will be felt a greater necessity with the increasing intercourse that is growing up between this and the French nation; this will be appreciated by the people at large, as it always has been by artizans and men of scientific research who are brought into more immediate relation with the beautiful decimal subdivisions that marked the age of Napoleon. Indeed, if we were seeking objections to the translation, it would be primarily, that the text has often been too closely followed in the denominations of weights and measures—this, however, is almost necessary to avoid constantly recurring fractions, and it may be the better philosophy for our government eventually to adopt their tables.

Professor Faraday, in his six lectures before the Royal Institution, has very wisely selected the non-metallic bodies, because, in a short course, it were impossible for one so charged with his subject, or for so able a chemist, to give more than a mere catalogue of simples and compounds, within the limits assigned, had he attempted more. For the same reason, and also in consideration of the character of his class, he has, even in this partial series of lectures on chemistry avoided many of the minutiæ, and has treated his topics rather in a generalizing, than in a systematic manner. In selecting the non-metallic bodies, it will be readily and spontaneously suggested to the minds of most chemists, that the Professor did so from their remarkable properties, and especially on account of the very wide range of affinities which most of them enjoy; they furnished him guy ropes, as it were, to the whole range of elements, and thus indirectly, put him into relation with the endless series of compounds which appeal to the chemist for their elucidation.

Another and far weightier reason has, no doubt, operated with this great chemist in making the selection of his topics. Working for years in his laboratory, (how laboriously and systematically, we who have derived invaluable aid from

his "*Chemical Manipulations*," have reason to be thankfully aware,) plying his bellows, urging his furnaces, fluxing the ores, and solving the riddles of mineral-waters and other more complex compounds, he has not failed at times to sympathize with the dark alchemists of a former era, when, beneath his own hand, he has seen elements so wholly change many of their characters as to be no longer recognizable by those who had studied them only in their normal condition. Intimately acquainted with the science of chemistry, and knowing its superiority of scope and object, over those of alchemy, his just and philosophic mind could not fail, in admiration of true worth, to accord merit where it was due, and, at the same time, to acknowledge the weak points of our chemical lore: wisely has he placed himself upon the watch-tower, shielded by knowledge of any weakness that may exist in the science, and armed with the wonderful discoveries of *Allotropism*, he is ready to receive any new intelligence from the realms of discovery that are, perhaps, just now opening through this vista into the arcana of creation.

With our present knowledge of the *allotropic* or changed condition of some of the simple bodies, in connection with the well-known incertitude regarding the ultimate character of hydrogen, which, in some of its combinations, puts on metallic resemblances and deportments, we may hope that its true character may yet be better understood. Possibly the suggested hypothetical *Ammonium* of Berzelius, may yet be discovered, in a metallic base of hydrogen, the lightest of all the elements, and on that account, perhaps, the least suspected of all bodies as in-wrapping a metal. Whenever this discovery shall have been made, an entirely new field will open to the chemist, who may then well entertain a doubt respecting the reality of the existence of the now accepted sixty-four *elements*. No longer will it do to ridicule the favorite ideas of the old alchemy. Too long and too darkly, and, alas! too selfishly did the votaries of astrology and alchemy grope in their egotistic researches for the elixir of life, and the philoso-

pher's stone; the one for the mere purpose of prolonging our mundane existence; the other, for the sordid object of transforming the baser metals into gold. Allotropism may bring that philosopher's stone within our reach, and though we be neither gratified nor ruined by applying it to base purposes, it may yet be the key by which we shall be able to unlock the hidden treasuries of knowledge "better than rubies," which always repays the investigator with a pleasure that is not to be purchased by gold.

Professor Faraday observes, "But the philosopher, led into this train of speculation, ends involuntarily by asking himself this question: In what will these wonderful developments of allotropism end? whether the so-called chemical elements may not be, after all, mere allotropic conditions of fewer universal essenses? whether, to renew the speculations of the alchemists, the metals may be only so many mutations of each other, by the power of science mutually controvertible? There was a time when this fundamental doctrine of the alchemists was opposed to known analogies; *it is now no longer opposed to them, but only some stages beyond their present development.*"

Since this subject is comparatively new to a portion of our readers, and the allotropic form of oxygen in the atmosphere is possessed of remarkable properties, and has been suspected of exerting some influence upon health and disease, it may be best to refer to the behavior and character of oxygen in the state of exalted activity, or *ozone.* We shall, therefore, consider a portion of Faraday's lecture upon this subject. Professor Schœnbein of Basle, has directed attention to this condition of oxygen, and thoroughly investigated it. Ozone is produced by passing sparks of electricity, through the air or oxygen gas, and has been long known by one of its physical properties as the *electric smell.* A readier method of preparing *ozonized oxygen* is to introduce a piece of freshly cut or scraped phosphorous with a little water, into the jar of oxygen—the change is soon effected and may be demonstrated

by the appropriate test. Another of several methods shall be mentioned. A little ether being poured into a jar, soon evaporates, and if then a heated glass rod (not too hot) be introduced, ozone may immediately be recognized.

The test for ozone depends upon its effect in liberating iodine from its compounds. One part of pure iodide of potassium, ten parts of starch, and 200 parts of water are to be boiled together for a few moments: a little of this solution, applied with a brush to white paper, and introduced into an ozonized atmosphere, instantly becomes blue, by the free iodine acting upon starch, its well known test. Strips of bibulous paper dipped into this solution and carefully dried, constitute Schœnbein's *ozonometric* test; for if introduced dry into an atmosphere supposed to contain ozone, and left for some time and then removed and moistened, they instantly become more or less blue if ozone have been present.

Ozone is a gaseous body, insoluble in water, and possessing a very peculiar odor, which, when concentrated, resembles that of chlorine; when diluted it is the electric smell. It soon destroys small animals, and thus may be very prejudicial to health. Like chlorine, bromine and the metallic peroxides, it is a powerful electro-motive substance. Like chlorine, it discharges vegetable colors rapidly. It converts phosphorus into phosphoric acid; it unites with chlorine, bromine, and iodine; it does not combine with nitrogen under ordinary circumstances, but does so when lime-water is present, forming nitrate of lime; and it is probable that the nitrates of nature are produced in this way. At all temperatures it acts energetically upon most metallic oxides, per-oxidizing them. Lead and silver are at once converted into per-oxides, arsenic, and antimony, into arsenic and stibic acids. Hydrates of oxides of lead, cobalt, nickel, and manganese, become in it per-oxides. It decomposes rapidly the solid and dissolved proto-salts of manganese, the hydrated per-oxides are formed, and the acids are evolved. It decomposes the solution of the tribasic acetate of lead, the per-oxide, and the ordinary acetate

being formed. Proto-salts of iron and tin are rapidly converted into per-salts. It destroys many hydrogenated gaseous compounds, such as those of hydrogen with sulphur, selenium, phosphorus, iodine, arsenic and antimony; and is thus valuable as a purifier of the atmosphere. It instantly transforms sulphurous and nitrous acids into sulphuric and nitric, and the sulphites and nitrites into sulphates and nitrates. By its continued action, iodide of potassium becomes iodate of potassa. It changes both the crystallized and dissolved yellow prussiate of potassa in tothe red salt—potassa being eliminated. It produces oxidizing effects upon many organic compounds, causing a variety of chemical changes—for instance, guaiacum is turned blue by it. It is thus apparent that ozone is a most powerful oxidizer. When a dry ozonized atmosphere or oxygen gas is passed through a red-hot tube, the exalted condition disappears, and mere oxygen is the result.

The well-known bleaching influences of the atmosphere, are attributed to the presence of the ozone, since neither simple oxygen nor nitrogen is endowed with any such energy. Ozone may be produced in many ways in the great laboratory of nature,—it may generally be recognized in air that has swept over the ocean, but is usually absent from that which has passed over a great extent of land. Schœnbein believes that the ozonized condition of oxygen is that which invariably precedes all permanent combinations of that element with other bodies; and that many of the bleaching compounds owe their efficiency to the presence of ozone.

This remarkable condition of oxygen is not peculiar to it in the state of a gas—for in certain solids we found a condition very analagous to it. Gun-cotton, also discovered by Mr. Schœnbein, is a substance of this character. Other forms of lignine or woody tissue, may be made to assume the peculiar condition of gun-cotton, by similar treatment; thus we may have gun-sawdust and gun-paper.

This notice has already been extended much beyond the

limits originally designed, but as the hours pass rapidly and are unheeded by the urchin who is occupied with his youthful games, so when descanting upon a favorite author and the fascinating topic he has introduced to us, we too of maturer years, and who should therefore have wiser heads, are all too apt to continue longer at our pleasurable tasks, than our readers, or listeners might desire.

The reader will the more readily excuse us in this instance, when he learns, what, with regret, we are obliged to inform him. The "*Six Lectures*" of Professor Faraday, have not yet found an American publisher, and that if desirous of further details he will be obliged to apply to the *Longmans*, London, for a copy of this delightful book, which is written in that simple, untechnical and illustrative style, which would render it peculiarly attractive to the general reader, as well as deeply instructive to the professional man who desires to revive or increase his knowledge in this charmingly attractive department of scientific attainment. J. A. W.

A Dictionary of Medical Terminology, Dental Surgery, and the Collateral Sciences. By CHAPIN A. HARRIS, M. D. D. D. S. Professor of the Principles of Dental Surgery in the Baltimore College; member of the American Medical Association; member of the Medico-Chirurgical Faculty of Maryland; Author of Principles and Practice of Dental Surgery, etc., etc. Second Edition. Carefully Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1854.

A very few years since, dentistry was in the hands of men who did not aspire to more than making money, and to giving in return for their gain, a mechanical fixture, designed more to please the eye than to assist mastication; but now dentistry is in the hands of a Profession, conscious of its usefulness, proud of its achievements, and ambitious to occupy a large space in the history of the times. Dentists are now learned men, striving to excel in the cultivation of science. Dental associations are now formed for the mutual improve-

ment of their members, by the interchange of thought, and knowledge, and the discussion of dental science, and dental etiquette; and numerous Dental Colleges are now in existence, regularly chartered and empowered by the "powers that be" to confer degrees on those who desire to enter the profession. So, we see that the spirit of progress, that marks this progressive age, has quickened into life, as by a magic touch, the dry skeleton—mechanical dentistry,—and it has become a living, progressive science, in which the mechanical, with its ghastly figure, is enveloped in a reticulation of beautiful scientific organization.

With a profession, as it becomes developed, we must expect to find a literature, springing up under its fostering care; and consequently, quite an extensive library may now be collected of works exclusively written on dental science.

Professor Harris has contributed largely to the shelves of dental libraries, and his works need no praise or commendation from us, for they are *essential* to every practical dentist—a fact which they all learn before they perform a single operation.

This, the second edition of his Dictionary, is a book of eight hundred pages substantially bound in calf, containing most of the words that are usually found in Medical Dictionaries and arranged in the same alphabetical order. But, as the dentists have made many new discoveries, and perform many new operations in mechanical and surgical dentistry, they have had to invent new terms, or to give to old ones new meanings, suited to the peculiar ideas which they may desire to express. Whenever such words occur in this work, a full definition is given, tracing the word throughout its immediate and remote bearings on the science or art of dentistry, making the book not only a complete dictionary, but an *encyclopedia* of dental science. For sale by H. W. Derby.

On the Construction, Organization, and General Arrangement of Hospitals for the insane. By Thomas S. Kirkbride, M. D., Physician to the Pennsylvania Hospital for the Insane. Philadelphia: Lindsay & Blackiston. 1854.

The object of the author of this little volume is sufficiently indicated on the title page.

The proper construction of Hospitals for the insane, is of primary importance in the treatment of that most unfortunate class of our fellow beings. Moral suasion and medical and surgical appliances are weakened in their effect, in proportion to the architectural defects. An agreeable temperature, a constant supply of pure air, and facilities for a judicious classification of the inmates, should be the first care of those charged with the duty of erecting such buildings. Our author says that "no better proof need be given of the necessity for improvements in the construction and arrangements of Hospitals for the insane, than the simple fact, that some of the very last which have been put up, exhibit in many parts most glaring defects, and that nearly all erected till within a few years, have required extensive and costly alteration or additions; or if these changes have not been made, the buildings still remain unsuited for the proper and convenient treatment of the patients. Many of these lamentable facts,—which often can scarcely be remedied without actually re-building the hospital,—and the large expenditure of money, in making alterations and improvements, have resulted almost entirely from the buildings having been planned by persons who, whatever may have been their taste, architectural skill or good intentions, had no knowledge of what is required for the proper care and treatment of the insane."

Dr. Kirkbride has had charge of the Pennsylvania Hospital for the insane, for a number of years, and through his management it is now justly styled, a "model institution," therefore, we can look for no higher authority on the subject of this little treatise, for he has made it his special study and practically tested what he recommends.

All who are interested in the present or future welfare of the insane should procure a copy of this work.

For sale by H. W. Derby.

The Transactions of the American Medical Association. Instituted 1847. Vol. VII. New York: Charles B. Norton, 71 Chambers-street. 1854.

We find in this volume, the usual variety of matter that has given interest to the preceding numbers of the Transactions of the Association. If we except the exquisitely fanciful, and delicately tinted illustrations of the "antiphlogistic touch" of Dr. Meigs in the last year's volume, this appears to be as well deserving of praise as any that has appeared.

After the minutes of the Seventh Annual meeting, appear the address of Dr. Parsons, Vice President, the report of the Committee on Medical Education; Report of the Committee on the Epidemics of Kentucky and Tennessee, a paper "on Erysipelas by R. S. Holmes of St. Louis," "on the Medical and Toxicological properties of the Cryptogamic Plants of the United States," by Dr. Porcher of Charleston, S. C. "A Report on the Epidemics of Ohio, Indiana and Michigan for the years 1852–53;" Report on the Epidemics of Louisiana, Mississippi, Arkansas and Texas, in the year 1853; Prize Essay; Report on the Norwalk Disaster. Dr. Linton's Remarks on Yellow Fever; Report of the Committee of publication; Report of Treasurer; Catalogue of the Officers and permanent members; General Index, and a "Special Index to the paper of Dr. Porcher.

In the report of the Committee on the Epidemics of Ohio, Indiana, and Michigan, is a paper, published by H. G. Carey of Dayton, on the Hydrography, Topography, Etiogy and Climate of Montgomery County, that possesses much merit, evincing the industry, skill and ability of its author. This paper is illustrated by a colored map of Montgomery County, with curved lines ingeniously drawn, so as to mark he boundaries of the various Epidemics which have prevailed therein from its first settlement to 1854.

The Reports of the two Committees on the Epidemics of the Southern and Western States give this volume a peculiar interest, especially to the Physicians residing in the extensive region, over which those states are spread.

Copies may be obtained by sending orders to Dr. Pliney Earle, New York, Chairman of the Committee on publication. W.

Diseases and Injuries of Seamen: with Remarks on their Enlistment, Naval Hygiene, and the duties of Medical Officers. By R. B. Horer, M. D., Surgeon of the U. S. N. Honorary member of the Philadelphia Medical Society, &c., &c. Philadelphia: Lippincott, Grambo & Co. 1854.

This is a modest little volume, and from the first glance at the title page, would appear to have small claim on the attention of the land surgeon; but on perusing its chapters they will be found charged with highly interesting matter, and brim full of merit. We, that plod our way on *terra firma*, thinking that we have a hard road to travel, know very little of the duties, toils, and privations, of our tempest tossed and care worn brethren, as they sail over the "deep blue sea," exposed to the vicissitudes cf every climate, and the dangers of the watery world that surrounds them. The severity of the task imposed upon them, and the little time they have to spend on shore, seems to leave them exempt from the *authorship-mania* that is raging to such an alarming extent among the professional ranks on land. Hence, we seldom meet with additions to our medical literature from the medical staff of the Navy.

Dr. Horer, we think, has made a very happy choice of a subject for the exercise of his pen; and few persons could be better qualified than he, to make a fair exposition of the duties peculiar to Naval Surgeons; as his experience in the service runs through a period of over twenty-eight years.

The first chapter of this work is devoted to an examination of the duties, rights, and position of Naval Medical Officers; their pleasures and perplexities, their privileges and their privations are depicted in a style that must be attractive to the most disinterested reader, and intensely valuable to every

one who has the least ambition to crown, in the future, his brow with Naval honors.

The second and third chapters treat of the enlistment, and the mode of examining Recruits in the Marine Corps. Naval Hygiene, and the best mode of constructing vessels to preserve the health of the Crews.

The remainder of the sixteen chapters of which the book is comprised, treat of the various diseases incident to seamen, and their treatment as adapted to the peculiarity of their position on board of ships.

For sale by Applegate & Co.

Progress of Medicine.

Extract from a Paper of Dr. Maschka, Lecturer on Forensic Medicine, in the Prague Medical Quarterly for Practical Medicine. 1854: *Vol.* 43. *On the Life of New-Born Infants without Respiration.* Translated by Dr. F. ROLKER.

It is a fact admitted by all legal physicians, and stated in all text-books of forensic medicine, that the life of new-born infants can continue for a short time under certain circumstances even without breath.

Legallois has pointed out and proved the justice of this assertion, by direct experiments on mammalia, and demonstrated that those fœtus which have not yet breathed at all offer much more and longer resistance to the experiments of suffocation, than such as have breathed for a certain time. Legallois has shown that newly born dogs, cats and rabbits lived twenty-eight minutes beneath the surface of the water. When they were thrown into the water five days after the birth, they lived only sixteen minutes; if they were ten days old, they lived only five and a half minutes; in fourteen days, however, they had already reached the boundary which fully grown warm-blooded animals could not pass, when they were withdrawn from the influence of the atmosphere. A new-born Guinea pig, on the contrary, lived only three or four minutes longer in the water than a fully grown one.

Edwards sought to find the cause of the differing length of

life of these animals in water, and found that those mammalia which at their birth generate so little warmth that they have, so to speak, not their own proper temperature, live much longer in water without breathing than those which possess a higher degree of original heat. The outward symptoms which determine a species to belong to this or that group, are found in this circumstance, whether the eyes are open or closed at the birth. The child is born with open eyes, and belongs of course to that group which develops the most warmth. It will also live a shorter time than the animals which are under the reverse circumstances, and by analogy from the experiments referred to, we may infer about from five to eleven minutes. It is evident that these experiments, as also the result drawn from analogy, refer to such fœtus' as, although withdrawn from the influence of the atmosphere, give unmistakeable signs of life, stirring and moving. The life of new-born children, however, may continue much longer without breathing than is the case under the above mentioned circumstances, when they are apparently still-born. For every physician knows from his own experience, that he often succeeds only after persevering and long-continued efforts in resuscitating the child.

That such a latent life in newly-born infants may exist under the most unfavorable circumstances, without any signs of life and without breathing through a long, hardly dreamed of time, is proved by the following facts, which are almost without a parallel in literature.

De Weese has already reported, in 1845, the equally interesting case of a woman 25 years old, who had concealed her pregnancy, and sitting upon a tub had given birth very rapidly to a child, which not moving and therefore considered dead, she had buried in a sand-pit, but which after half an hour had been dug up again and yet brought to life. Also, at the Superior Court in Berlin, in 1850, is said to have been a case where a girl had buried her illegitimate child, supposing it to be dead. Suspicion was excited, and after the lapse of an hour the child was exhumed, signs of life discovered, and it was completely resuscitated.

The following case supersedes these in every particular. The case itself is taken from the forensic documents:

Theresia P., a servant woman twenty-three years old, became pregnant and did not deny at all her condition, but declared openly that she was so from her lover, who had promised to

marry her. On the evening of the 15th October, she experienced severe pains, without however, according to her account, suspecting that these could be the beginning of labor-pains. To this conclusion she came only later, when the pains, after several hours, increased in severity. Notwithstanding this, she called no assistance, because she was afraid of being scolded by her mistress. At 4 o'clock A. M., on the 16th October, she heard that the oxen in the stable had broken loose from the chain. In spite of her pains, she went from her sleeping room to the stable, where such a violent pain seized her, that she could not leave the place. After a short time, probably about 4½ A. M., the birth followed, while P. was leaning against the wall, assisting herself with her hands, and drawing the child by the head from the sexual parts. At the same moment she fainted, and let the child fall on the ground and leaned herself on a trough, in which position she probably remained half an hour unconscious. When she recovered herself, the child lay on the ground and on it a spade, with the edge toward the child's body. She raised the child, which was entirely cold and apparently perfectly lifeless, and overcome with fear and anguish, as to what her parents would say to it, she took the resolution to put the child, which she considered dead, out of the way. She wrapped it therefore with the placenta, which was attached yet to the body by the navel-string, in her apron, went into the garden, lying behind the house, and dug with her hands and partly with the help of a pointed stone, a grave in the earth, laid the child within it in such a manner that it lay half the face in the deepest part of the grave, and then filled it up with the earth, using a bit of pointed wood to shovel it in and smooth it over.

As P., at 7 o'clock A. M., came to her mistress, the latter remarked that the very enlarged abdomen of the pregnant P. had evidently disappeared, from which she suspected that she had given birth. As however the child was nowhere to be seen, and P. made various evasions to her questions, she sent for the midwife, and afterwards, at 9 o'clock A. M., for the surgeon, S. Also to these two she wished to deny at first her delivery; but when after a manual examination they discovered unmistakeable signs of a recent birth, and Surgeon S. threatened her with a criminal process, she confessed that she had given birth to the child in the early morning of the same day, and had buried it in the garden. She led them then in the garden, and showed them the spot. The midwife dug with a stick the somewhat loose earth and found, perhaps 9½ A. M.,

after she had dug about half a foot deep, in a one foot deep grave, the child, which with the back of the head and the back upwards, lay with the face toward the earth. Under the body of the child lay the after-birth. The midwife took the child, which appeared entirely lifeless, into the chamber, and after previous tying the wholly cold and pulseless navel-string, took the after-birth from the child. Surgeon S., however, applied the proper means of resuscitation, as frictions, injections, inspirations, and smelling remedies, by means of which, after a continuation of two full hours, a slight breathing and then gradually more and more distinct signs of life ensued, until the child at last completely recovered. It must be remarked, however, that there was no real cry, but more of a rattling.

Immediately after the child was found, which was otherwise perfectly mature and carried its full time, they discovered on it, 1st, on the left ear, a wound ½ inch long, ⅛" deep, 3‴ broad, which went merely through the skin and the subjacent cellular tissue; 2d—over the left clavicle a round, skin-wound of 3‴ in diameter; 3d—an ecchymosis running from the left ear to the left corner of the mouth, in the form of a bluish stripe one quarter of an inch broad; finally, 4th—several insignificant skin-scratches on various parts of the body. It is worthy of remark, that from the wounds on the neck, which did not bleed when the child was found, a little blood run after applying efforts of resuscitation, and after the child began to recover.

The resuscitated child was handed over to the care of a married woman, took eagerly the offered breast, but died in three days, viz: 19th October, of convulsions, after, on the 17th and 18th October, suppuration had taken place in the wounds of the neck, without any other essential appearance of sickness.

The child was buried without a post-mortem examination, but five weeks afterwards exhumed and then examined.

The following case Dr. Maschka relates from his own personal observation and experience:

In a private house in X. a child was one day born at 12 o'clock, M., which, as I afterwards learned, showed no signs of life, and even after many efforts of resuscitation, continued for more than an hour, presented no sign of existing life; on the contrary, by the blue color of the skin, the body, at the same time, becoming more cold, was considered dead, and

the continuation of the efforts suspended. After perhaps two or three hours the child was taken from its bed into an adjoining chamber, which was not heated (it was in the month of January and excessively cold); towards evening it was laid in the coffin, which was closed with the cover, and so left over night by the open window. It is to be remarked, that this child, as it was laid in the coffin properly, and for this purpose was raised again from it, was torn in the right side of the chest by a long, projecting nail, so that the integuments corresponding to the fourth rib, in the length of two inches, were torn down to the rib, without the slightest blood flowing from it. The next day 11 o'clock A. M., consequently twenty-three hours after the birth, I came accidently into the house, and they asked me to examine the child again. The body was quite cold, somewhat' bluish in color, the eyes and the mouth shut, the extremities easily moved in the joints; on the whole, no signs of rigidity of death, nor spots of death visible. Somewhat surprised by this last appearance, but without in the least doubting the real death of the child, more out of habit than from any other reason, I placed my stethescope in the region of the heart. How great was my surprise to find that I heard the sounds of the heart, certainly weak and in long pauses, yet distinctly audible, and in a manner that, to judge from the intervals in which they were perceptible, at that time about 10—15 contractions of the heart might have taken place. A pulsation, or a rising and sinking of the relative costal intervals, was neither to be seen nor felt. Notwithstanding the instantly renewed efforts of resuscitation, during which not the slightest voluntary motion or any other symptom followed, we were not able to retain the child in life. The sounds of the heart became ever weaker and rarer, until at last, after the lapse of an hour, they entirely ceased. The next day, as in the meantime the death-spots and rigidity had developed themselves, permission was granted me to open the cavity of the chest. In consequence of the lesion above mentioned on the external thoracic wall, the tissues were torn down to the rib without the slightest trace of blood in the region of the wound. The lungs were dark-red in color, exceedingly tough, without any trace of air-bubbles, sunk in water to the bottom, as well in the whole as in small pieces, were tolerably full of blood, and presented wholly the appearance of fœtal lungs which had not yet breathed. The heart was normally formed, and held in its left cavity some fluid blood, while that of the right side was entirely empty of blood.

Treatment of Nævus by Tartar Emetic Plaster.—Dr. Cumming read to the Westminster Medical and Surgical So. (Feb. 17, 1854) a paper on this subject. After alluding to the various methods that have been adopted in the treatment of these cases, and to the objections which apply to so many of them, he stated that the most satisfactory cures had resulted from the inflammatory and ulcerative processes being spontaneously set in the tumors, and producing the obliteration of the enlarged vessels by suppuration. He then mentioned Mr. Hodgson's plan of vaccinating the tumors, for the purpose of exciting the adhesive inflammation, but regarded it as a doubtful method of cure, since, though the tumor might be studded over with punctures, only two or three vesicles might arise, and only a partial obliteration ensue. He suggested, therefore, the more effectual plan of treatment by tartar emetic, the method of applying which will best be illustrated by the following case: A child, aged nine months, was brought to him on account of its having lost a large quantity of blood from a vascular nævus on the right temple. The side and central portions of the tumor had been removed by the vaccinating process some time previously. Pressure and cold astringent lotions were first used unsuccessfully. He then determined to use tartar emetic, hoping that, as the eruption produced by this agent resembled that occasioned by the vaccine matter, it might succeed in obliterating the distended vessels. A compound of *fifteen grains of tartar emetic mixed with one drachm of galbanum plaster* was spread on a piece of thin leather, cut accurately to the size of the tumor, and applied to the nævus. On the third day inflammatory redness had occurred without causing much pain or irritation. On the seventh and eight days, the pustules appeared, and, in order to secure as many as possible, the plaster had been pressed gently down over the pustules daily; until it was removed on the ninth day, at which time the eruption had completely involved the diseased structure. The pustules ran through their usual course, and in due time a slough was detached, and the ulcerated surface healed rapidly, the resulting cicatrix being scarcely noticed. Eight similar cases were then successfully narrated, in all of which the same simple method of treatment was adopted with like success, the only exception being in one of them where the cure was only partial, in consequence of the tumor having been situated too near the angle of the orbit to permit the free use of the tartar

emetic plaster. In all the other cases, the scars which resulted were comparatively slight. He then exhibited a patient on whom he had thus operated for two nævi, one of which being situated on either brow; the cicatrices which had followed, though large, were not unsightly.

Editorial.

The present number makes complete the fifteenth volume of the Western Lancet. Its escape from the press, is so much behind the proper time, that we feel exceedingly mortified at the idea of sending it to our readers, even with an apology for its slow delivery. A combination of circumstances that cannot possibly occur again, has rendered a delay in the issue of this, and the last number, inevitable. But, when we state to our patrons, that we have made arrangements with several gentleman, possessed of superior abilities, by which they will become regular contributors to our journal, in addition to those, who have been kind enough, in the past, to give us their original productions; and, that in the future we will devote several pages, monthly, to Hospital reports, we feel emboldened to ask, in confidence, for forgiveness for past offences, and for a continuance of that support, which has been so liberally extended to the "Lancet," by the profession, during the past year.

New type has been procured, on which the next volume will be printed, and several minor improvements are in contemplation which warrant us in asking for an increase in the length of our subscription list, and a greater circumference to the area of circulation for our Journal.

The rapid growth of Cincinnati, from immigration, and the spirit of commercial and manufacturing enterprise, augments her importance in the view of a vast community, spread over the southern and western states; and scattered through this immense population, thousands of medical men must find their attention turned to this great commercial mart, for that which they most desire, light upon the healing art. We have just past through an

extraordinary period in the medical history of our city. Many of the great men of our profession, who have been for years the standard bearers of medical science, and the supporters of our Professional reputation, honor and dignity, have passed away, leaving vast chasms in our ranks. Harrison, Shotwell, Drake, Buckner, and many others, were called to that "bourne from whence there is no return," in such rapid succession, that all seemed to stand for a time in mute astonishment, and silent grief, at the irreparable loss we had sustained. But places of high trust and responsibility were vacant; and they must be filled, yet, while many were anxious for position, few felt themselves to be worthy and well qualified.

Few of those who were ambitious for place and preferment, had sufficiently distinguished themselves in the fields of science, to insure appointment from the ruling powers, without criticism from the less fortunate, who considered themselves fully their equals. From this condition of things, sprung up a little strife, which at a *few points* may have been augmented to positive envy; yet we are confident that this struggle for preferment, has been very much exaggerated, in the minds of our distant brethern, and tha it will result in much good.

Excited by this strife into a laudable ambition to excel, many of the younger members of the profession have devoted themselves with renewed energy, to the study of medical science; some at home, over the midnight lamp, and others have repaired to the great schools of Europe, and have returned with a fund of knowledge gathered from the highest sources, which they are cheerfully throwing into the common stock, for the honor and advancement of the profession in the West.

It is true, that we have no one or two great minds, whose intellectual brilliancy dazzles and overshadows the many, but we think we see already above the horizon, many whose industry and talents *will* shed upon us the light of a brighter day. And the time is rapidly approaching—nay—it is already at hand,—when the sayings and doings of the medical men of this great city, will be sought after, and appreciated by the profession at large.

To make a faithful record of these "sayings and doings" and to "nothing extenuate, or set down aught in malice," is the highest duty of a journalist.

This, together with gleanings from the widest possible range, of original communications, and a large list of periodicals, shall be the object, end, and aim, of the "Western Lancet."

Small Pox.—The small pox is prevailing rather more this winter, in our city, than for several years past, though we have more or less here every season. It has not been very fatal, as in a large portion of the cases it has been modified, by the effect of vaccination,—taking the milder form of varioloid.

Where vaccination has been submitted to recently, the system effectually resists the small-pox contagion, but in many instances, where several years have elapsed, though leaving, (to all appearance,) a genuine escar, persons have had severe varioloid. These facts, should admonish all who have not been vaccinated, to attend to it without delay, and those who have not been for some time, to have it repeated to insure perfect protection.

Miscellany.

To the Profession of Ohio.

The undersigned having been appointed at the late meeting of the State Medical Society, to report on the *practice of medicine*, at the next annual meeting, respectfully ask the co-operation of the physicians of the State. The following are the points on which information is more especially directed:

1. The prevalence of Fevers—their types, duration, treatment, and post mortem appearance. The extent to which continued fever has superseded the periodical forms.
2. The prevalence of Consumption—its increase or diminution, within recent periods, and mode of treatment.
3. The prevalence of epidemic or endemic diseases, and the most successful modes of treatment.
4. The modifications which diseases have undergone, within recent periods, and the necessary changes of treatment.
5. The influence of the changes of seasons in modifying or producing disease.
6. The introduction of new remedies.

The Committee would be glad to receive communications on the above subjects, as early as practicable. It will be important to note the season of the year when any special disease prevailed, and the general topographical character of the locality whence the observations are drawn.

Communications may be addressed to any member of committee, or to the chairman, at Cincinnati.

L. M. LAWSON, M. D., Cincinnati.
G. W. BOERSTLER, M. D., Lancaster.
ROBERT THOMPSON, M. D., Columbus.

Monthly Report of the Commercial Hospital, for the Month ending Nov. 30th, 1854.

No. of Admissions	54	No. of Deaths	6
" Males	47	" Discharges	14
" Females	7	" Remaining	34

Of the 32 remaining in October, 1 died; 16 were discharged, and 15 remain. Total number of patients in the house December 1st, 42.

Of those admitted in November there were—

	ADMITTED.	DIED.	DISCHARGED.	REMAIN.
Typhoid Fever	6	0	1	5
Remittent Fever	4	0	2	2
Pneumonia single ac	2	0	0	2
Pneumonia double	3	1	0	2
Pneumonia typhoid	2	2	0	0
Pleuro-Pneumonia	1	0	0	1
Pleuritis, acute	2	0	0	2
Bronchitis, acute	1	0	1	0
Phthisis pulmonaris	2	0	1	1
Endocaditis and obstruction	2	0	0	2
Cirrhosis	3	0	0	3
Enterritis	1	0	0	1
Dysentery acute	1	0	1	0
Colica pictonum	1	0	1	0
Hemiphlegia	1	0	1	0
Delirium tremens	2	0	0	2
In Articulo Mortis	3	3	0	0
Mellingering	1	0	1	0
Peurperal peritonitis	1	0	0	1
Suppressio menseum	1	0	1	0
Leuchorrhœ	1	0	0	1
Pregnancy	1	0	0	1
Curvature of spine	2	0	2	0
Syphilis Tertiary	2	0	0	2
do Secondary	1	0	0	1
do Primary	1	0	0	1
Gleet	1	0	1	0
Burns	1	0	0	1
Wound of stomach by dirk	1	0	0	1
Fracture of Femur	1	0	0	1
" " Ribs	1	0	1	0
" " Fibula	1	0	0	1
Total,	54	6	14	34

Meteorological observations for November, 1854. Made at Zanesville, by John C. T. Holston, A. M., M. D.

Barometer, Maximum, November 5th,.....29,63 inch.
" Minimum, November 24th,.....28,33 "
" Monthly average,.....29,06 "
" Monthly range,..... 1,30 "
" Greatest daily range 6th of November,..... 0,34 "
Thermometer, Maximum, Nov. 12th,..... 66 deg.
" Minimum, Nov. 28th,..... 24 "
" Monthly average,.....40,27 "
" Monthly range,..... 42 "
" Greatest daily range Nov. 9th,..... 30 "
Dew point highest, Nov. 12th,..... 62 "
" lowest, " 28th,..... 23 "
It rained on the 3rd, 10th, 12th, 15th, 18th, 22d, 24, and 25th; and snowed on the 26th, 27th, and 29th—11 days. Total amount,..... 1,987 inch
Average rain and snow per day, ... 0,066 "
First snow of the season, November 18th.
No prevailing disease.

Treatment of Milk Abscess.

We alluded in terms of strong commendation, in a former report, to the plan of tonic medication in all cases of milk abscess, which is adopted by Mr. Paget at St. Bartholomew's Hospital. Very numerous cases of this affection, in all forms and stages, excepting perhaps the peracute, come under treatment in the out patients' rooms of that Institution. Their subjects are general cachectic women. Mr. Paget always opens the abscess as soon as fluctuation can be felt, by an incision as small as possible; scrupulously abstains from squeezing, and orders a small poultice to be applied over the part where the skin is inflamed. Over the poultice a layer of cotten-wool is placed, and the whole slung to the neck in a handkerchief. A draught, containing quinine and the sulphate of iron, is ordered to be taken three times daily. Mr. Paget states, that, for many years, he has never, in a single case, had any trouble with fistulæ. We observe a great difference in practice among Hospital Surgeons as to making large or small incisions into mammary abscesses, some preferring very free openings, and others, like Mr. Paget, never making more than a mere puncture. On the whole, the latter mode appears to be more successful; the constitutional treatment is doubtless, however, of the most importance.

INDEX.

Armor S. G., on Latent Pneumonia..... 643
Annual Report of the Cincinnati Medical Society..... 29
A Text Book of Anatomy. By W. R. Handy..... 47
A manual of Obstetrics. By Thomas F. Cook, M. D..... 50
American Medical Association..... 63
A case of Empyema with pneumothorax from punctuated wounds. By I. D. Waterman..... 76
A new method of determining the quality of Urea in Urine..... 114
A new kind of Alcohol..... 125
A treatise on acute and chronic diseases of the neck of the Uterus..... 213
Alcoholic liquors in the practise of medicine..... 230
A case of disease of the kidneys and ureters, with extensive concretions. By A. T. Keyt, M. D..... 259
A Reminiscence..... 259
An Essay on Ergot. By J. P. Walker, M. D..... 260
A Treatise on Venereal diseases..... 307
Asiatic Cholera as it appeared in Cincinnati during the years 1849 and 1850. By Thomas Carroll, M. D.....321, 385; 445
Asiatic Cholera..... 377
A case of Gun Shot Wound. By W. K. Reynolds..... 405
A Universal Formulary..... 431
A case of Monstrosity. By Julius I. Taylor, M. D..... 470
American Pharmaceutical Association..... 502
Asthma, treatment of..... 509
Abstract of Meteorological observations at Zanesville. By J. G. T. Holston, A. M. M. D..... 511
Arsenical Poisoning. By G. T. Holston, M. D..... 513
An account of seventeen cases of Paturition, in which Chloroform was inhaled with pernicious effects..... 541
Annual Announcements..... 576
A case of Cephalic Version. By A. T. Keyt, M. D..... 590
An Examination of the practice of Bloodletting in mental disorders..... 598
Arabian Medicine..... 633
Abstract of Meteorological observations..... 641
A Treatise on Diseases of the Eye..... 48
Acids in the treatment of Cholera..... 440
Anatomy Bill..... 447
Atmospheric Air to the Human Body on the relation. By G. P. Hackenberry, M. D. 579
Belmont Medical Society..... 25
Balm for Chapped Nipples and Broken Chilblaines..... 128
Brewer's Yeast in Puerperal Fever..... 317
Board of Health Report.....512, 642
Brandy and Red Noses..... 639
Brainard Daniel, on the Treatment of Poisoned Wounds..... 658
Bernard's M. Lecture on the Blood..... 695
Clavus Pedomanus. By J. W. Mighels, M. D..... 15
Correspondence, Paris. From J. A. Murphy, M. D..... 27, 79, 144, 200
Correspondence, Paris. From T. J. Cogley, M. D..... 45
Cystorrhœa produced by a vesecular growth of the external orifice of Urethea..... 55
Chloroform..... 60
Circular to the Professors of Ohio..... 62
Correspondence..... 63
Certain signs indicating the commencement of Pulmonary Phthisis..... 125
Collodion and Castor Oil in Erysepelas..... 128

Cold as an Anaesthitic Agent. By Thos. Wood, M. D..... 193
Correspondence, Paris.....291, 366, 413, 481, 529
Commercial Hospital..... 319
Conception previous to Menstruation. By M. Wemple, M. D. 407
Clinical Lectures on Palmonary Consumption..... 428
Circular Address to the Pharmaceutists and Druggists of the United States..... 444
Carroll Thos., observation on Cholera, by.....321, 385, 449
Consumption, remarks on. By Wm. Guilford..... 475
Correspondence..... 509
Creasote in the treatment of Diabetes Mellitus. By E. B. Harrison..... 516
Cholera, as it appeared in Dayton. By J. A. Coons, M. D..... 525
Correspondence, V. Kersey, M. D..... 528
Case of placentary apoplexy..... 564
Cure of consumption..... 576
Complicated Labor, two cases. By. Thos. Wood, M. D..... 592
Cancer Cells. The formation and diffusion of cancer cells in the neighborhood of cancer..... 600
Case of Popliteal Aneurism treated by Legature of the superficial femoral artery. 609
Chloroform..... 627
Correspondence. H..... 597
Case of Pervious Umbilical Cord, through which passed pure bile for nine weeks.. 518
Catarrhal fever of Infants, on the. By E. B. Stevens..... 520
Coons I. A., Dysentery..... 195
" " Cholera..... 525
Chloroform, rules for its administration..... 608
Chronic inflammation of the bladder..... 609
Cure for sore nipples..... 702
Carey on Analysis of the Blood 708
Correspondence, John G. Holston and Jno. A. Skinner, M. D.....740, 741
Dropsey of the Foetus in Utero. By E. K. Ferris..... 18
Dr. Druett on Cancer..... 98
Death from Chloroform..... 127
Dysentery. By I. A Coons, M. D..... 195
Description of eight skulls of Flathead Indians from Columbia River..... 242
Diseases of the heart and aorta..... 303
Diabetis Mellitus, Notes on the treatment of.. 381
Drake Dr. second Volume on Diseases of the Mississippi Valley..... 633
Discovery of Viviparous Fish in Louisiana..... 679
Diseases of the interior Valley of North America..... 685
Elements of Human Anatomy..... 95
Etiology, Pathology, and treatment of Fibro, Bronchitis and Rheumatic Pneumonia, on the..... 98
Extirpation of the Uterus..... 117
Ergodelateria. By Prof. Slack..... 140
English and French Therapeutics..... 318
Editorial.....57, 116, 188, 245, 318, 377, 502, 440
Epidemic diseases of Ohio, Indiana, and Michigan..... 383
Erysipelas transmitted from parents to offspring..... 441
Extract from the Constitution of the American Pharmaceutical Association..... 444
Editorial.....570, 632
Ergot: circumstances which contra-indicate its use during labor..... 624
Eczema 639
Fracture of the bone of the head. By H. K. Pusey..... 70
Fistula in ano, treatment by iodine injection..... 106
Fistula Lacrymalis..... 119
Furunculus 128
Ferruginous Collodion..... 128
Fistulo in ano..... 252
Felt Splints..... 316
Fistula in ano. C. B. S..... 390
Fever Intermittent..... 638
Ferris D. E. H., Dropsey of the foetus in utero..... 13
Guano in cutaneous diseases..... 106
Guilford Wm. on Consumption..... 475
Gallic Acid in the Hemorrhagic deathesis and diseases characterized by relaxed fibre or excessive secretion..... 494
Galium Aparine in certain forms of cutaneous, scrofulous and cancerous diseases. 625
Gibson Wm. Prof..... 702
Homœopathy: its tenets and tendencies, theoretical, theological and therapeutical. 183
Hints on the causes of blindness..... 227
Homœopathy fairly represented..... 305
Hermophrodite..... 356
Hand book of Chemistry..... 376
Hydrophobia..... 391

Homœopathy, N P. Willis and ... 573
Healthy Skin ... 610
Homœopathy slight dilutions ... 637
Hydrocele ... 638
Homœopathy dishonesty ... 639
Hecherman J, T., Quinine in Cholera Infantum ... 77
Holston G. F., Arsenical Poisoning ... 513
Harrison E. B., Creasote on the treatment of Diabetes Mellitus ... 516
Hackenberg G. P., Atmospheric Air ... 579
Hays Isaac and Wills Hospital ... 701
Infusoria in Woman's milk ... 56
Incompatibles. By C. W. Wright, M. D ... 139
Instruments for cauterization of the Larnyx ... 241
Irdiana Midwifery ... 431
Indiana Medical Journal ... 511
Insanity produced by Camphor ... 633
Keyt A. T., diseases of Kidneys and Ureters ... 257
" " cephalic version ... 690
Lithotomy in infants. By T. Wood, M. D ... 73
Life of Sir Isaac Newton ... 711
List of graduates of Ohio Medical College ... 192
Lectures on Infancy and Childhood ... 308
Local Anæsthesia ... 317
Lincoln Dr. Asa ... 510
Lawson L. M. on Spasmodic Asthma ... 1
Therapeutics ... 65
Organic Lesions of the Bronchial Tubes. ... 129
Microscopy ... 113
Medical Society of London ... 180
Meeting of the American Medical Association ... 378
Medical College of Ohio ... 443
Mendenhall Dr. G. Acid as an anti-periodic ... 472
Miscellany ... 64, 124, 251, 316, 381, 443, 511, 634
Migbeles J. W., Clavus Pedomanus ... 15
Mussey W. H., Vesico Vaginal Fistula ... 354
Medical Schools ... 703
Monthly Reports ... 705
News of the month ... 57
Neuralgia ... 128
Necrological Records ... 192
News of the month ... 188, 248
Notes on the treatment of Diabetes Mellitus. By Rennet ... 381
New mode of treatment for delayed or non-union of a Fractured Humerus ... 558
New mode of reducing Prolapsus Uteri ... 567
On Spasmodic Asthma. By L. M. Lawson, M. D ... 1
On the removal of particular kind of Opacity from the Cornea ... 51
Ozone ... 125
On Organic Lesions of the Bronchial Tubes. By L. M. Lawson ... 129
On the Therapathic use of a new Terro-Manganic preparation ... 175
On the Venom of Serpents ... 234
On the pathology and treatment of the Disease of the Scalp, popularly known by Ringworm ... 235
On the medical properties of the Coffea Arabica ... 254
Obituary ... 448, 640
Ovarian Cyst cured by the tincture of Iodine administered internally ... 498
On prepared Citrate of Magnesia ... 501
Observations on the Medical Virtues of some of the most prominent indigenous veg. tables grown in Vermont ... 555
Ohio College of Dental Surgery ... 634
Pajot's Obstetrical Table ... 49
Principles of Botany the ... 50
Prognosis and treatment of Epilepsey ... 126
Puerperal Convulsions ... 251
Putrid gas in the Veins ... 252
Physician's Blank List ... 447
Pennsylvania Medical College, Philadelphia ... 510
Pusey M. D., H. K., fracture of the Bones of the Head ... 70
Principle forms of the Skeleton of the Teeth ... 697
Physician's Visiting List ... 697
Pleasures of a Water Cure ... 704
Proceedings of Societies ... 721
Quinine in Cholera Infantum. By J. H. Hackerman ... 77
Quackery in England ... 119
Quarantine to exclude Cholera ... 574